



**THE BEST WAY TO
ACHIEVE LOW-COST
HOUSING IS TO BUILD
LOW-COST HOMES...**

*Building Material
Manufacturers Work
Together to Help You
Reduce the Cost of
Your - - **NEW HOME***



WHEN automobiles first appeared on the streets they were the toys of the well-to-do, because the most modest model usually cost well over \$2,000.

When the cost of an automobile ultimately reached a level you could afford . . . you bought one, and have probably owned one since.

Custom-built cars are still expensive . . . and so are *custom-built* new homes. But, just as there is a car you can afford today, the building industry can give you a "stock" model *new home* which you can afford.

Houses which are given the same engineering attention received by the low-cost automobile can really be low-cost to you. For nearly twelve months the technical representatives of more than a score of prominent American building material manufacturers have given earnest attention to the development of home designs which anyone can build with the same per-dollar value found in today's minimum automobile.

The thirteen 1939 Demonstration Designs illustrated in this book are the result of these cooperative studies. They are the result of one of the most serious attempts ever made to produce a genuine small home bargain which *anyone can build anywhere with local labor and materials*. They deserve your attention . . . they are unexcelled in their price class.

*The name of the informal, non-profit corporation set up by building material manufacturers to help them work together toward better homes at lower costs for more people is **NATIONAL SMALL HOMES DEMONSTRATION, INC.***

This organization seeks to interest progressive and alert dealers and builders in your community in the production of Demonstration Houses from the designs contained in this book . . . so that their clients may have first-hand opportunity to see just how much their money can be made to buy in a modern Small Home in 1939.

Patterson

*There is a great need
for lower cost small homes in
America ~ ~* **PROPERLY DESIGNED
WOOD HOMES CAN MEET THIS NEED**
Right Now ~ ~ ~ ~ ~

OVER Five Million American families of low and moderate income would be much happier if, instead of handing a rent check to a landlord each month, the same money were paid as an installment on a house held in their own name.

This simple fact creates one of the most perplexing problems in America today. We have the money . . . we have the means of producing the proper kind of homes . . . and we have the whole-hearted cooperation of the United States Government toward a more general home ownership for the general national good . . . home ownership based on a new concept of "more house for your money."

With all of these favorable factors, why are there not more rent-paying families of moderate or small income, acquiring new, better homes without an increase in the family housing budget?

The answer is the same as that which can be given for many other American problems . . . *want in a land of plenty because buyer and seller have failed to provide each other with the machinery for getting together.*

No one is particularly to blame for this situation. It is of long standing . . . but, we can do something about it to the advantage, benefit, and profit of everyone.

The American building industry in most communities *can produce* an excellent Small Home . . . well designed, built of good workmanship at prevailing labor rates, and soundly financed for \$2500; in some communities more; in others even less. This it has proven during the last two years by cooperative experimental building. . . . **THIS SHOULD BE GOOD NEWS TO MILLIONS OF AMERICANS.**

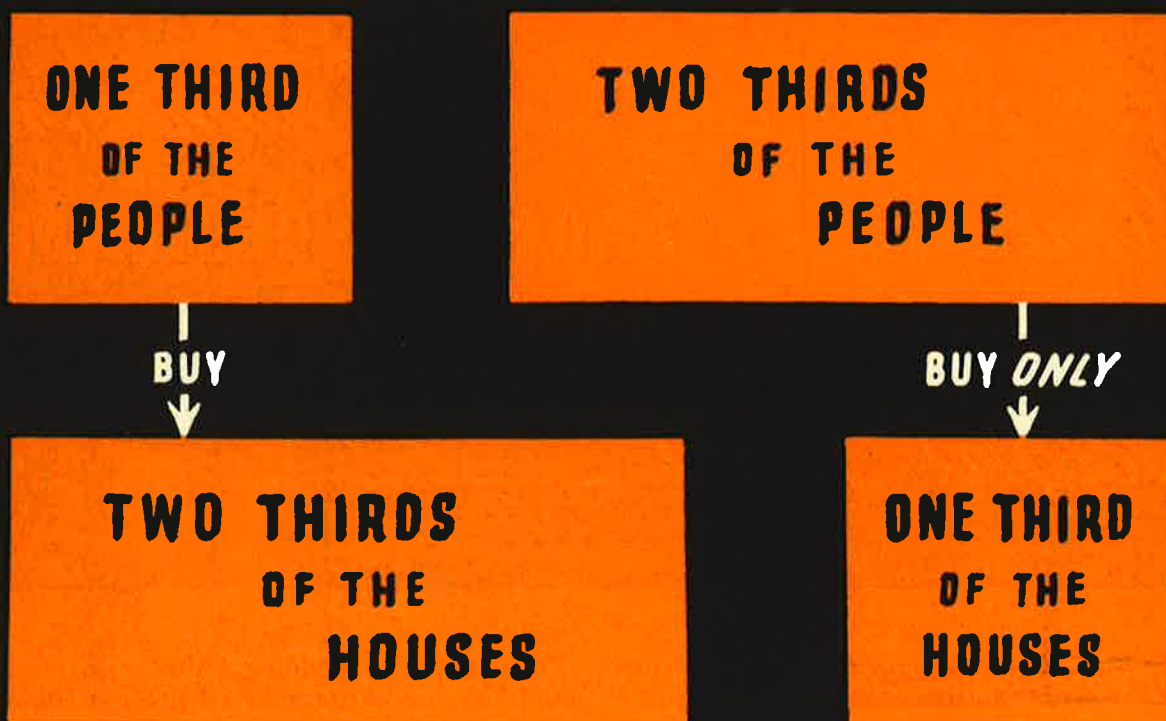
The organization of manufacture and distribution within the building industries is as yet imperfect. But in your own community, if you have or can get a lot which suits you, you can buy your low-cost small home right now . . . if you will ask for it . . . and more especially if you will avail yourself of the efficient designs in this booklet.

Your Lumber Dealer is your best source of information on home building . . . and armed with these thoroughly engineered low-cost plans like the 1939 National Small Homes Demonstration homes, he is in a position to carry through for you a personal "more-house-for-your-money" program.

Or in many communities, through your Builder, you may be enabled to secure Small Homes of this type, available at the equivalent of a moderate rental basis.



WHAT'S WRONG WITH THIS PICTURE ?



. . . Most People Don't Realize How Much They Can Get for Their Money if They Will Stick to Essentials . . .

MANY people believe that new home building is for *only* those families which pay big income taxes. Circumstances *may once* have been such as to lead to this conclusion . . . but, those circumstances no longer exist . . . widespread notions and prejudices linger long after the reasons for them have been removed.

Why do *one-third* of our American families continue to purchase *two-thirds* of our new home output? Is it because the other *two-thirds* of the families which buy *only one-third* of the houses think they can't afford a new home?

The answer, as given by authoritative surveys, seems to be that misinformation, lack of information, prejudices, and habits keep two out of every three families with reasonably dependable incomes, although

small, from seeking the better accommodations they could have if they knew the 1939 facts of housing.

Due largely to greatly improved, more scientific, and *much more liberal* terms of home financing, today's new home building picture is entirely different from that of even five years ago . . . *there is a way today for any family which pays fifteen dollars or over per month for rent to have a new home of its own choosing.*

No family which has a steady income is out of the home owner class when it is possible (and it is possible now) to produce a sound, well-built, modern home for \$2500 to \$3000 and to buy the home on a basis of *ten per cent down* and twenty-five years to pay for the remainder. (Federal Housing Administration, new liberalized terms.)

The percentage of home ownership in the past has been highest among families with incomes exceeding \$2500 per year. Previous high costs of financing, large down payments, and inattentiveness of builders to the more simple home types contributed largely to this condition.

Times have changed . . . the reasons for this higher percentage no longer exist. Percentage of home ownership in families of income below \$2500 should and can, for the benefit of those families, equal that of any other group of our population.



MOST FAMILIES
can afford a **HOME**
(Many don't realize it)



IT IS easier to say: "I can't," and believe it, than to say: "I can," and mean it. Most people believe they can't do things because they have not investigated and do not know the facts or the new possibilities . . . *this is particularly true about houses.*

Every dollar has one-hundred cents which are just as good for one item as another . . . if you live in a home and pay rent for it you may safely assume, although you may not know it, that *you are actually buying the house . . . but for some one else.*

Fundamentally there is slight difference between renting living accommodations and buying living accommodations on the monthly payment plan. In one case *you make no down payment, but pay more in each monthly installment.* In the other you make a down payment for the right to *pay out less per month and accumulate as savings in your own name a substantial part of the payment.* The cost of owning a good Small Home in most communities is no greater than the cost of *renting.*

The reason most people think they cannot afford a new home is that they speak of a type of house which is out of tune with the family budget . . . for every income range there is *always* a type of house which the family *cannot* afford. The trick . . . which most people do not take time to discover is that . . . *there is a kind of house they can afford if they will look for it.*

In making plans for a new home every family is naturally ambitious. Since few prospective home builders are familiar with building costs, it is natural that they should, *at first*, lean toward accommodations which are beyond their financial reach. We seldom do this with automobiles because we know roughly in advance the general price range of a given make of car.

Just remember this one suggestion when you start your investigations looking toward a new Home . . . do not expect to get twice as much for the money you are now paying for rent. *You can get more for your money.* You can improve your housing conditions by building your own home, but don't try, and be disappointed, to get an eight-room house for the rent you now pay on your five-room house. Compare equals with equals, and build or buy a house which can be readily extended as your income grows.

**CAREFUL PLANNING CAN
PROVIDE ANY RENT PAYING
FAMILY WITH A NEW
HOME**



MORE MONEY IS AVAILABLE FOR HOME BUILDERS TODAY THAN EVER BEFORE... *use it*

The table below gives you the exact figures for monthly payments under the Federal Housing Administration insured mortgage plan for houses of various costs up to and including \$5,000. It tells you how much the down payment will be in each case, the amount of the monthly payment, and the approximate cost of the insurance and taxes in each case.

Cost of Building With a 15 Year Loan

Appraised value of house and lot.....	\$ 2,000	\$ 2,500	\$ 3,000	\$ 3,500	\$ 4,000	\$ 4,500	\$ 5,000
Maximum loan possible (90%) ¹	<u>\$ 1,800</u>	<u>2,250</u>	<u>2,700</u>	<u>3,100*</u>	<u>3,600</u>	<u>4,000*</u>	<u>4,500</u>
Monthly payments on 15 year loan:							
Principal and 5% interest.....	\$ 14.24	17.80	21.36	24.52	28.43	31.64	35.60
Mortgage insurance (1/4 of 1%) ².....	.38	.47	.57	.65	.76	.84	.94
Monthly cost of buying house.....	\$ 14.62	18.27	21.93	25.17	29.24	32.48	36.54
Add fire insurance.....	\$.27	.34	.40	.47	.53	.60	.67
Add taxes (estimated) ³	\$ 2.48	3.10	3.72	4.34	4.96	5.58	6.20
TOTAL COST PER MONTH.....	\$ 17.37	21.71	26.05	29.98	34.73	38.66	43.41

Cost of Building With a 20 Year Loan

Appraised value of house and lot.....	\$ 2,000	\$ 2,500	\$ 3,000	\$ 3,500	\$ 4,000	\$ 4,500	\$ 5,000
Maximum loan possible (90%) ¹	<u>\$ 1,800</u>	<u>2,250</u>	<u>2,700</u>	<u>3,100*</u>	<u>3,600</u>	<u>4,000*</u>	<u>4,500</u>
Monthly payments on 20 year loan:							
Principal and 5% interest.....	\$ 11.88	14.85	17.82	20.46	23.76	26.40	29.70
Mortgage insurance (1/4 of 1%) ²	\$.39	.48	.58	.66	.77	.85	.95
Monthly cost of buying house.....	\$ 12.27	15.33	18.40	21.12	24.53	27.25	30.65
Add fire insurance.....	\$.27	.34	.40	.47	.53	.60	.67
Add taxes (estimated) ³	\$ 2.48	3.10	3.72	4.34	4.96	5.58	6.20
TOTAL COST PER MONTH.....	\$ 15.02	18.27	22.52	25.93	30.02	33.43	37.52

Cost of Building With a 25 Year Loan

Appraised value of house and lot.....	\$ 2,000	\$ 2,500	\$ 3,000	\$ 3,500	\$ 4,000	\$ 4,500	\$ 5,000
Maximum loan possible (90%) ¹	<u>\$ 1,800</u>	<u>2,250</u>	<u>2,700</u>	<u>3,100*</u>	<u>3,600</u>	<u>4,000*</u>	<u>4,500</u>
Monthly payments on 25 year loan:							
Principal and 5% interest.....	\$ 10.53	13.17	15.80	18.13	21.06	23.40	26.33
Mortgage insurance (1/4 of 1%) ²	\$.40	.49	.59	.67	.78	.86	.96
Monthly cost of buying house.....	\$ 10.93	13.66	16.39	18.80	21.84	24.26	27.29
Add fire insurance.....	\$.27	.34	.40	.47	.53	.60	.67
Add taxes (estimated) ³	\$ 2.48	3.10	3.72	4.34	4.96	5.58	6.20
TOTAL COST PER MONTH.....	\$ 13.68	17.10	20.51	23.61	27.33	30.44	34.16

WORK THE CHARTS THIS WAY: Choose from the black figures on the bottom line the amount you can afford to pay monthly on your new home, then follow up the column to the first line which will give you the approximate size home you can build.

(1) If you already own a lot, or if you purchase a lot which represents 10 percent of the total value of your house, your 90 percent loan will cover the full cost of your house. If your lot is less than 10 percent of the

value of the whole you must make up the difference in cash.

(2) This amount for mortgage insurance applies only for the first year. In subsequent years you pay at this rate only on your unpaid balance.

(3) Taxes shown are only estimated averages.

* Mortgages are insurable only in multiples of \$100.



**OUT OF
YOUR PAY
ENVELOPE...**

A Home of YOUR OWN

PROGRESS in human affairs cannot touch one branch of our daily life without affecting another. Advancements in the art of living have a bearing on all things we buy and use.

In the early days of this century you had to have the money, or at least a good share of it, to build a new house. In those days investment capital sought greater return than it believed it could get by placing money in people's homes.

America's old pioneering days are over. The excess capital of this country has become convinced that well-built homes occupied by their owners form one of the safest, most secure and conservative investments. This is the reason home ownership today differs so vastly from just a few years ago . . . good homes are good investments for everyone . . . the man who loans money and the man who borrows it on moderate interest secured by an insured mortgage.

The prime requisite for the purchase of a new home today is a steady *pay envelope*. The size of the envelope is of less importance than the fact that you have it and are interested in regularly using a part of it, perhaps a fifth or a fourth, to pay for and to maintain your own home.

Given the envelope . . . you can have the house. If you have

doubts, make a careful study of that line in the table on the opposite page, called "*Monthly Cost of Buying House.*"

Most people who know best agree that *twenty to twenty-five per cent* of the monthly family income is the *most* which should be paid out for shelter. Couple this fact with the figures on the opposite page. The total cost to you per month, *which includes your taxes and insurance*, for the most expensive house listed (\$5000) is \$37.52 per month on a twenty-year loan basis. If the loan is placed on a twenty-five year loan basis the cost per month is reduced to \$34.16.

There is a type of house listed on the opposite page for incomes of from \$90 per month to \$150 . . . and the homes illustrated in detail on the latter pages of this booklet are the kind which a family of these incomes can afford. Their distinction is that they are so efficiently designed and so well engineered that they provide an absolute maximum of usable living space and comfort at lowest possible cost. They are the type of home which will give you far more for your money when built in your own name and paid for out of your weekly envelope *than any house you can rent.*

Such home design and engineering service has never before been available without cost to you!





This delightful Cape Cod home is one of the Building Industries' low-cost Demonstration Homes for 1939 and 1940.

This house, designed by Royal Barry Wills, noted architect, has been erected by the Western Pine Association, Portland, Oregon, on Treasure Island, the site of the San Francisco Golden Gate Exposition, where it will be on public exhibition throughout 1939.

Shall We **RENT IT -- or BUILD IT?**

... What Do We Get For Our Money Both Ways?

WHEN acquiring a new place in which to live the average family wants to know first: "What does it cost per month?" Or per week? Or per day? This question applies whether the new accommodations are intended to be rented or whether the monthly outgo is in the form of payments on a home purchase.

Comparison of two months' costs—one for rent and one for house installments—without understanding what they mean may be misleading. If the monthly budget charge for a certain rented house is \$30, for instance, and the monthly budget charge against another house which may be purchased on payments is also \$30, and the two houses are approximately of the same size and accommodations, there will be a great difference to the property owner in his housing costs over a period of years. The reason for this should be obvious, but it is often overlooked.

The house which can be built or bought on \$30 monthly payments will cost much less in the long run. No part of the \$30 spent for rent can be recovered. A substantial portion of the \$30 spent for purchase payments, on the other hand, is being stored away in the form of an accumulating equity.

This means that the \$30 paid for the home being purchased represents two items—"housing cost" and "savings" while the rented house at \$30 accounts for only one item—"housing cost".

Since we are interested in keeping the monthly expenses for housing at a fixed figure, let's look at the situation another way: How do the accommodations compare as between a house rented for \$30 a month and a house purchasable on \$30 monthly installments? In other words, which type of housing expenditure will give us *per dollar* the most room and the best accommodations?

Assuming, for example, that we have been able to pay down \$500.00 on a new home, our \$30 per month installments will permit us to carry and pay for a house which costs around \$4,000, and we will have a total value in our home, including both house and lot, of about \$4250. This will provide a new and modern house of six rooms, arranged and decorated in accordance with our own tastes and inclinations.

Now assuming, on the other hand, that we have kept our \$500.00 in the bank and decided to pay the \$30 a month for rent, we will usually find it difficult on the average real estate market to lease for \$30 a month a house which has the value, the attractiveness and the accommodations of the new home available for a similar amount payable in monthly purchase installments.

Of course there will be taxes and insurance to pay on the home being purchased. But the proportion of the \$30 installment which is saved toward eventual ownership of the property will exceed the annual tax and insurance cost.

Our \$500 which we have taken out of the bank will be earning more money in our home than in a savings account. Few banks today will pay more than 3% interest, which means \$15-per-\$500 each year. On the other hand, few landlords renting houses expect to receive less than 6% return. On the money borrowed for the building of our own home we will be required to pay at least 4½% and more, probably 5% interest. Since 5% interest is \$25 per year, it is not wise ordinarily to leave our \$500 in the bank earning \$15 while we pay out \$25 or \$30 for the use of a similar amount of someone else's money.

Summarizing, we may state the *rent vs. installment* situation somewhat like this: If we pay an equal amount for rent and for purchase installments we will be living in a *less satisfactory house* if we rent. If we build we will pay about the same amount per month but we will have a better home and a portion of our installments will be accumulating in the form of equity, and after a period of years we will own the home outright.

One of the problems of the modern business world is the safe investment of money. Housing is required by every family. It will ordinarily be found wise to use as much of our own money for our own shelter as possible. We cannot hope to invest our own funds safely at a rate greater than we will have to pay when we borrow to build, or the rate at which we will pay the landlord for the use of his money in a rented house.

The CASE for HOME OWNERSHIP

Just What are the Best Reasons for Building a New Home . . . ?

ROGER BABSON, the well known economist and business sage who has turned his attention during the last few years to a critical study of contemporary American life, had this to say recently:

"I believe people will come to the conclusion that a small home is safer than money in the bank, and that the only real assets are fertile lands and good children."

There is hardly a mature man or woman today who has not wondered at some time during a pause in this active life, just what there is in store when the years, which pass so quickly, have brought old age. If we can project ourselves this far into the future, the truth of Mr. Babson's opinion of life's real assets will become apparent.

Did you ever enumerate the many forces which the ownership or the purchase of a new home set into motion? . . . Just what are the direct advantages to you when the family acquires its own place to live? . . . Here are a few advantages of home ownership:

1. *Financial Independence*—More people have started on the road to financial independence through home ownership than in any other way.

2. *Security*—In times of stress the home is always something to fall back on.

3. *Cash Equity*—A home is much like a savings account, from which you draw your interest as you pay it.

4. *Credit*—Home ownership gives financial and credit rating in the business world because it is everywhere recognized as a fundamental principle of stability.

5. *Social Background*—The children of home-owning parents somehow seem to have a greater stake in the community.

6. *Environment for Children*—Your sons and daughters have the privilege of playing and spending recreation periods within the confines of land which is owned by the family and in which they have a personal interest. Improvements and additions can be made with no fear that your work will be wasted as is often the case when the family moves from a rented house.

7. *Development of Responsibility*—The home owner always feels a greater sense of responsibility for the preservation of his property; and, in any neighborhood where home ownership predominates, building values and the appearance of the community are always much better than in a rental area.

8. *Expression of Individuality*—The opportunity to express on the interior and exterior of your home those personal ideas of yours which individualize your property as having been developed according to your own taste is worth much in personal contentment and satisfaction.

9. *Permanence of Environment*—Old friends are always best, and it is pretty difficult to develop life-long attachments which make living more pleasant, when we move from rented house to rented house in many different communities.

10. *Character Development*—The responsibilities of home ownership have contributed greatly to the development of good business judgment and trading acumen on the part of many home owners.



It has been many years since someone invented the slogan: "Own Your Home" . . . but, like a great many old-time truths, no one has ever been able to improve on either the sentiment or the business advice in the phrase.

Probably more than any other house in America, the venerable homestead illustrated above is associated with man's love of his own home. It is the Long Island home of John Howard Payne, about which he wrote "HOME SWEET HOME".

11. *Independence*—It is certainly a pleasure for the home owner to know that no one can raise his rent, order him to move, tell him how many pets he can have, restrict the size of his family, or comment in any way upon the development of the home.

12. *Savings Habit*—Most of our actions being habitual, it is easy for the home owner who has completed the purchase of his dwelling, to continue systematic monthly saving.

13. *Peace of Mind*—We always live better when we know that come-what-may the paid-for-house means always a roof over the family.

Recently the ARCHITECTURAL FORUM set about to find out how people felt about home ownership. They picked 16 typical cities and asked questions of persons who were renting homes. Four out of every five Americans of the middle and lower-middle income groups preferred home ownership, providing they continued to get their present annual income.

Asked why they prefer their own homes, 26% said they liked the feeling of ownership; 23% said they wanted a place they could fix up to suit themselves; 17% stated they believed they could get better accommodations for less money; 10% thought there were greater advantages for their children; 9% said they would like to be able to do as they pleased.

Aside from these reasons there is one fixed factor: Whether you own a home or rent one, the same items have to be paid, and these items are: *Interest on the money invested, taxes, insurance, and up-keep.* When you own your home you must pay these four items. When you rent a house you must pay these four items plus the fifth, which is *profit* to the landlord—a profit to which he is entitled as long as you continue to require him to do for you what, often at even less expense, you can do for yourself. An occupant pays interest, taxes and insurance whether he rents or owns.

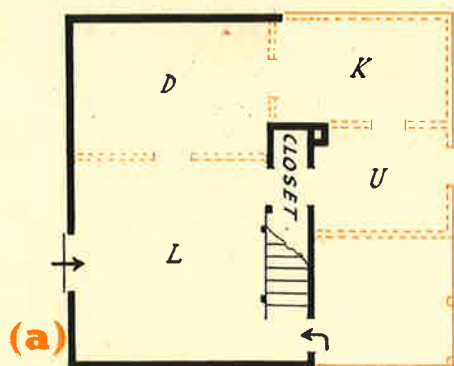
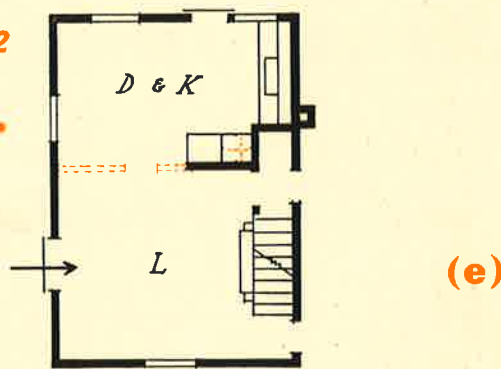
Without Loss of Efficiency

... This Economic Plan Can Be Adjusted to Your Requirements ...

Although they may appear quite different on the exterior and bear only slight resemblance on the interior, scores of homes in your community have the same basic floor plan.

This is the sign of a good economic plan . . . one which many builders have found to be efficient. One of the most important considerations of the group of architects and engineers which produced the houses here and on the next six pages was the development of a base from which many different exteriors can be created and to which additions and rearrangements can be added to fit many tastes without greatly increasing the cost of the house.

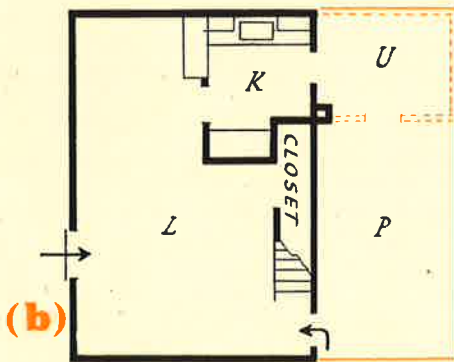
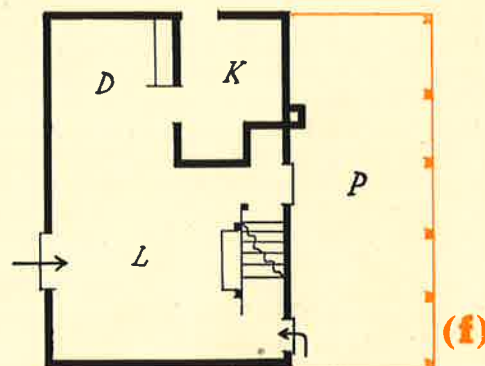
This page illustrates a few of the many possibilities in National Small Homes Design No. 1, more fully discussed on page 9. The black portions of the floor plan represent basic outlines while the colored lines show various alterations.



An easy means of enlarging the dining area in the basic No. 1 Design is the conversion of a side garage area into kitchen, utility room, and small entrance porch. As illustrated in Figure (a), the house would be built *without* basement.

Figure (b) is another re-allocation of space based on a house *without* basement. The dining area has been kept at a minimum to allow for a much larger porch. In both Figures (a) and (b) the narrow dimension of the house has been turned to the street.

Another bedroom can be added to the basic design by carrying the side walls of the garage or other side appendage up to the eave line. This scheme, as illustrated in Figure (c) will work on any of the first floors shown here except Figure (e).

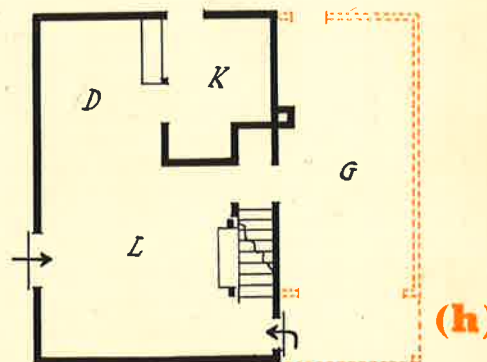
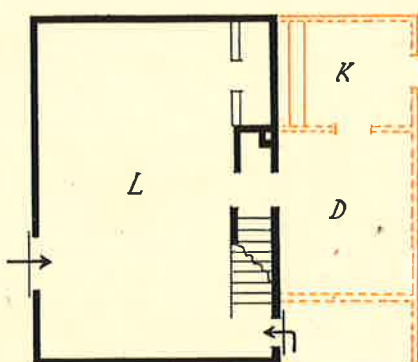
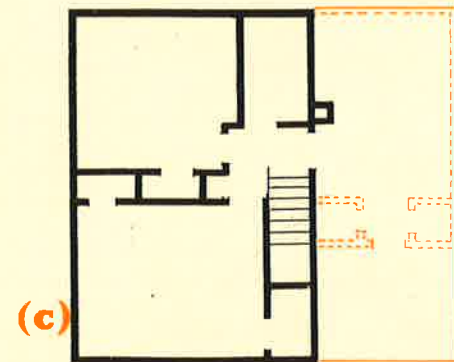
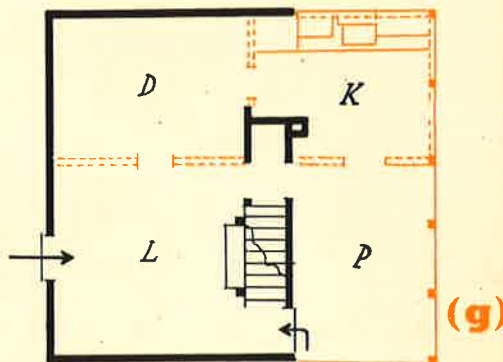


For a larger living room use the alteration shown in Figure (d). The new living room would be 13' 6" x 24'.

Figure (e) illustrates the basic design with a combination kitchen-dining room accomplished by the simple removal of a partition.

If you like plenty of porch build Figure (f).

If you want a larger dining room, but are building a basement, use scheme in Figure (g).





.. An Efficient Shape Is the First Requirement of an Economic House

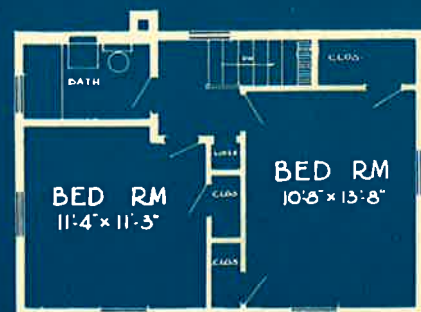
THE goal of the Technical Committee of the National Small Homes Demonstration for 1939 has been the development of two basic small homes, a one-story house and a two-story house which could be constructed and sold in most American communities for monthly payments ranging from \$15 to \$30 a month.

Thorough research and study indicated that the one-story structure should be a four-room house having two bedrooms, and that the two-story house should contain five rooms, either with or without an attached porch or garage.

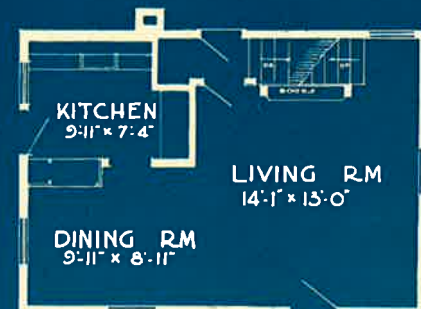
The house illustrated above is the basic plan for the five-room, two-story house and is designated as Design 1-A.

The technical key to lowest cost homes is the production of a rectangular form which permits a given amount of material to enclose a maximum cubage with the least possible number of man-hours of labor . . . and the use of equipment consistent in cost with the size and structure of the house. This house follows this formula.

The floor plan at the right is the lowest-cost basic edition of Design No. 1 . . . other exteriors and variations in floor arrangement involving basementless features, porch and utility room additions, garage, and extra storage space may be added to this fundamental plan . . . many of them are illustrated on the following pages.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



.. Same Efficient Shape Plus an Open Porch and a Change in Siding Material ..

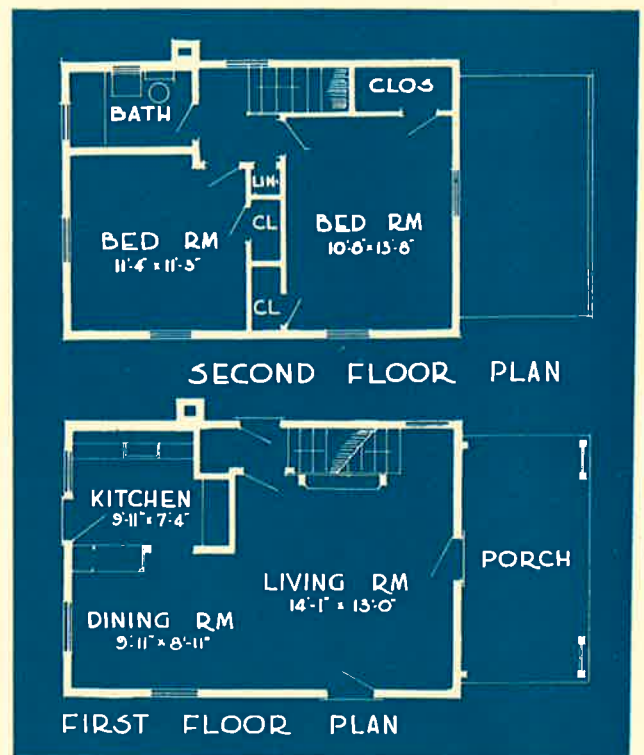
BASIC Design No. 1 is so arranged that either the long or the short dimension of the main house may be turned to the street.

The variation above employs a slightly altered front door detail, wood shingles instead of wood siding for the side walls and includes a side porch. Interior room arrangement is identical with the original base.

The base exterior dimensions of Design No. 1 are 17' 6" x 25', making possible the use of the minimum front lot now being permitted in most sub-divisions.

The floor plan is simple and direct with a minimum of partitions, which is one of the factors contributing to its low cost. The house has direct entry into the living room, and an open stair to the second floor. While the dining quarters are sufficiently separated from the main living room to give the impression of a separate area, the absence of a partition between the two, contributes to the open aspect of the entire first floor and makes the living quarters seem larger.

The second floor contains four closets for two bedrooms and a standard-sized bath. Each bedroom will accommodate a double bed and other usual furniture. Each bedroom has plenty of light and cross ventilation.





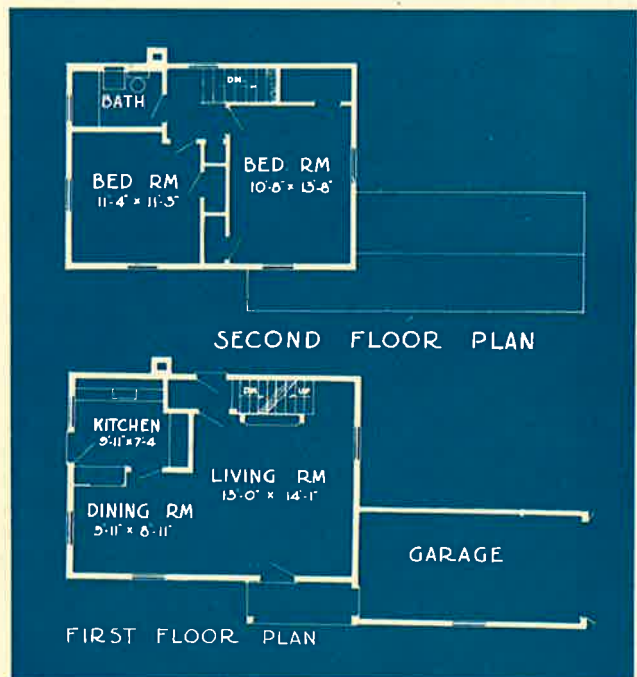
. . Garage Replaces Porch and the Same House Looks Larger and Longer . . .

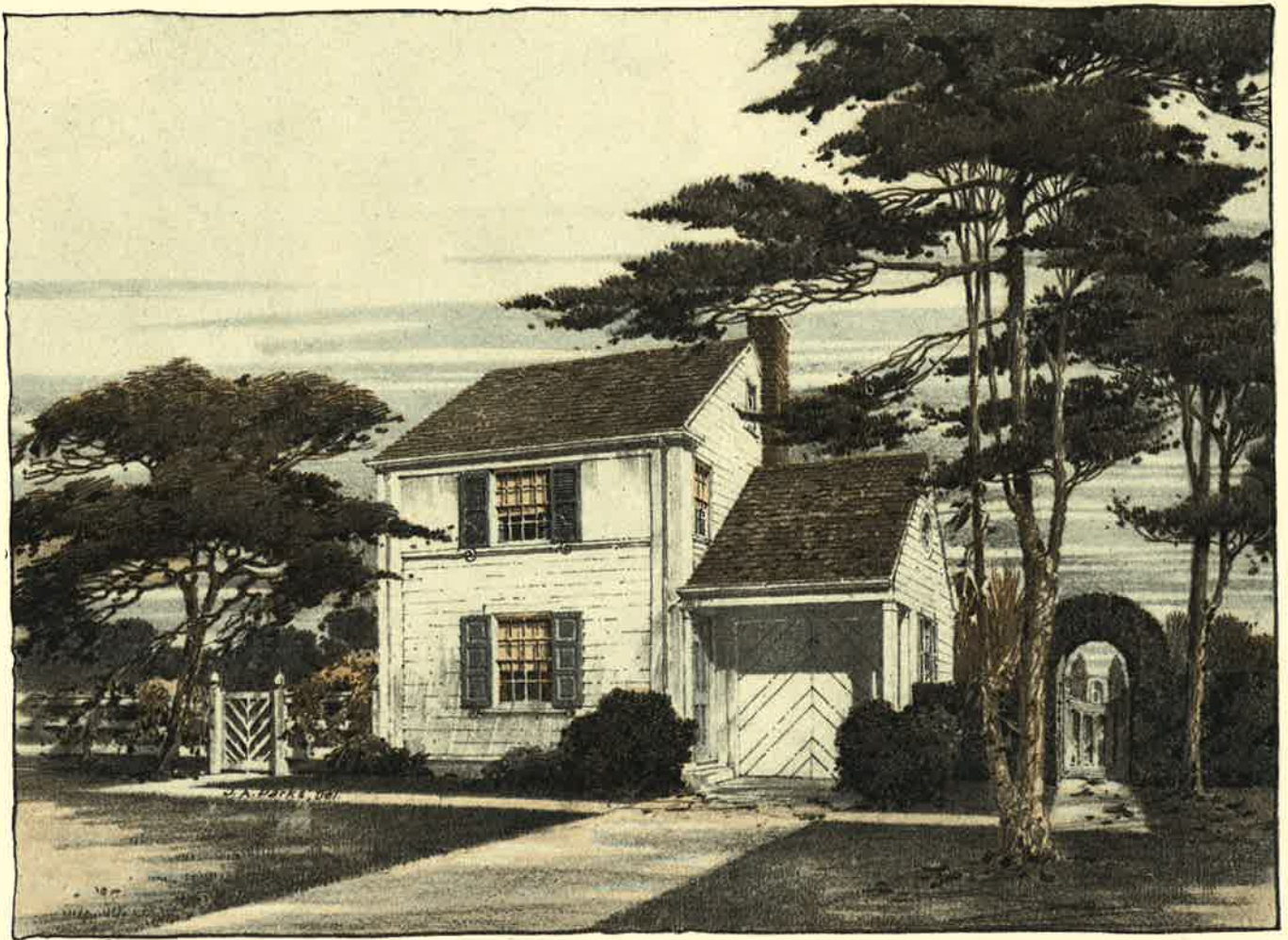
THERE are many positions in which a garage for this house may be located. Probably the most pleasing from an exterior standpoint is that illustrated above, which adds greatly to the apparent length of the house and does much to increase mass.

Since the house is 25' long and the garage should be no less than 18', it will be necessary to have a lot in excess of the standard 50' width to accommodate this house. At least 20' should be allowed for making the turn from the drive into the end of the garage.

This house-garage combination has many advantages over the construction of a separate garage in the rear yard. First, of course, is the saving in not having to build that portion of the end wall which is a part of the house. The extension of the garage roof provides an inexpensive means of shelter over the front door, and less driveway construction is needed.

An interesting possibility which would give still greater length to the front of the house would be the building of a porch on the left end to balance the garage. Access is gained by converting the window in the end of the dining room into a door. If screened, such a porch serves well as a summer dining area (in which case it should be extended far enough to the rear to include the kitchen door). If the garage is built long enough, an extra coat closet may be obtained in the living room.





. . Relocation with End of the House to Street Permits Use of Narrower Lot . . Garage Being Retained

BY TURNING the narrow dimension of basic Design No. 1 to the street, the main portion of the house occupies only 17' 6" of the lot's frontage. This permits the inclusion of a side garage and permits the whole to be built easily on a lot no greater than 40' wide.

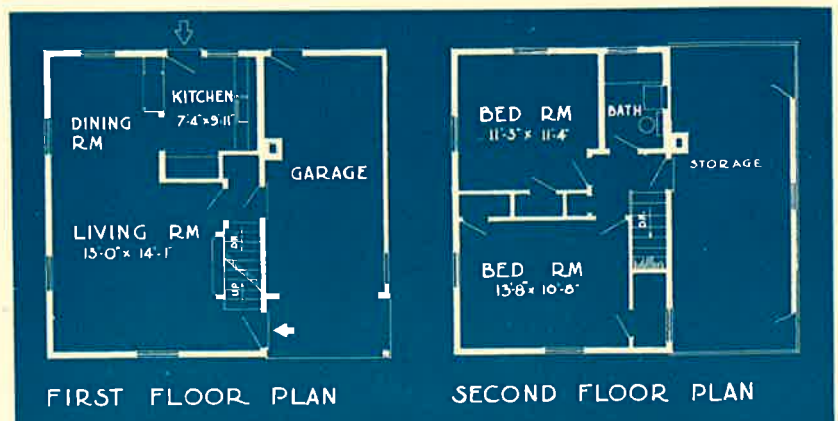
The roof ridge has in this case been made parallel with the short dimension of the house, so that in effect the house has been deepened.

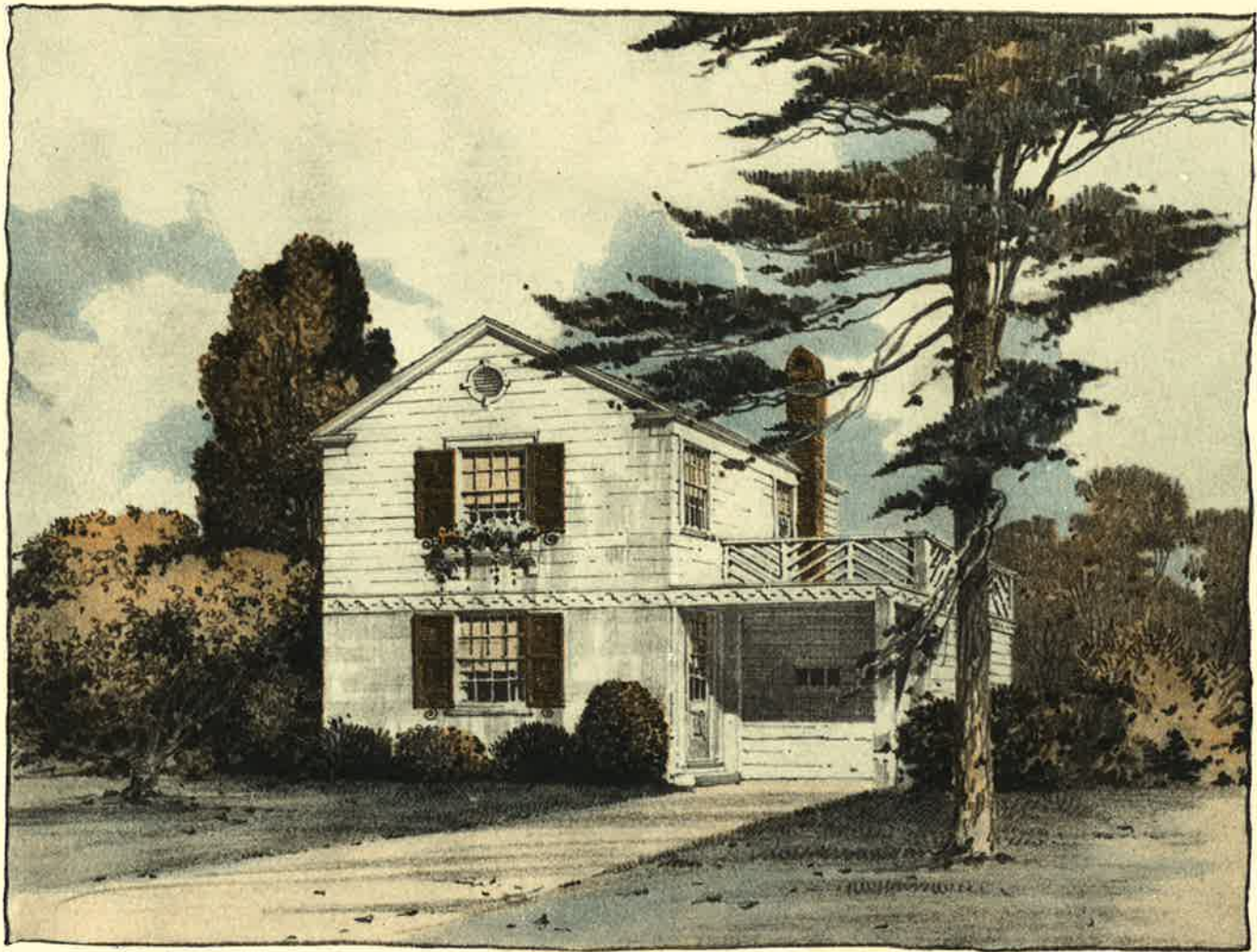
One of the most important attributes of this house is the extra storage space which has been gained by carrying a high-pitched roof on the garage in such a position that it may be reached from the head of the stairs on the second floor. This allows a large lighted area for storage purposes.

Of course it is possible to erect a high-roof garage on several of the other exterior versions of Design No. 1, thus securing the advantages of extra space.

Note the fact that the extension of the garage roof makes a protective covering for the front door, which is

now on the side of the house rather than on the front. The break in the pattern of the siding material just under the front window on the second floor helps lower the general aspect of the house. Beveled siding is used below this line and flush boarding above. The angle-pattern garage door is inexpensively constructed by the application of boards over a low-cost stock door.



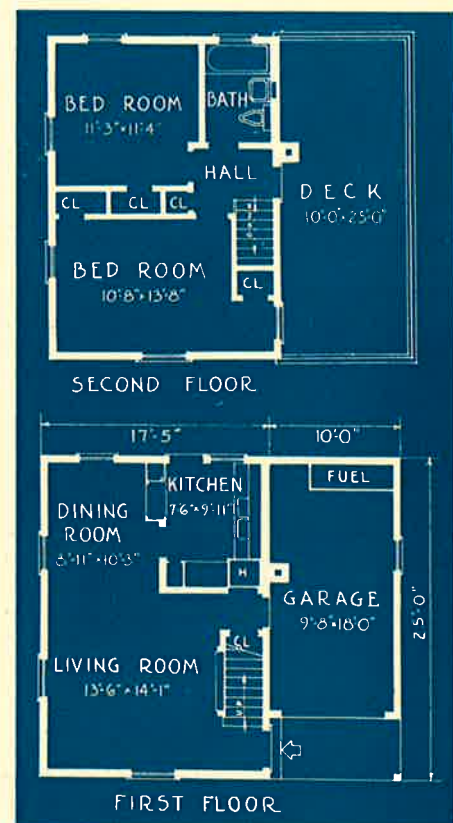


. . . A Flat Garage Roof Permits a Second-Story Sun Deck . . .

MAINTAINING a roof ridge parallel with the longer dimension of the house, as in the first three versions of Design No. 1, but turning the shorter dimension to the street, produces the Colonial type illustrated above, which has all the advantages of adaptation to a small plot, retains the side garage and provides the increasingly popular sun deck accessible from the second floor.

The sun deck has been secured at the sacrifice of the over-the-garage storage area in Design 1-D. The front door is still on the side, with a covered entry. The change in the position of the roof gable will have little effect on the cost of the house, and is offered only as a means of varying the exterior appearance to suit individual taste.

This version of Design No. 1 has been arranged to be built without basement, the heater for the house being located in the area formerly occupied by the coat closet on the first floor and the coat closet having been transferred to the small unused area under the steps, formerly allotted to cellar steps. Provision has been made for fuel to be stored at the rear of the garage, and the small alcove formed at the left of the fuel tank or bin is of ideal size for the storage of garden implements out of the path of the car.





... Corner Windows and Flat Porch Deck Give Modern Aspect to Same Basic House ...

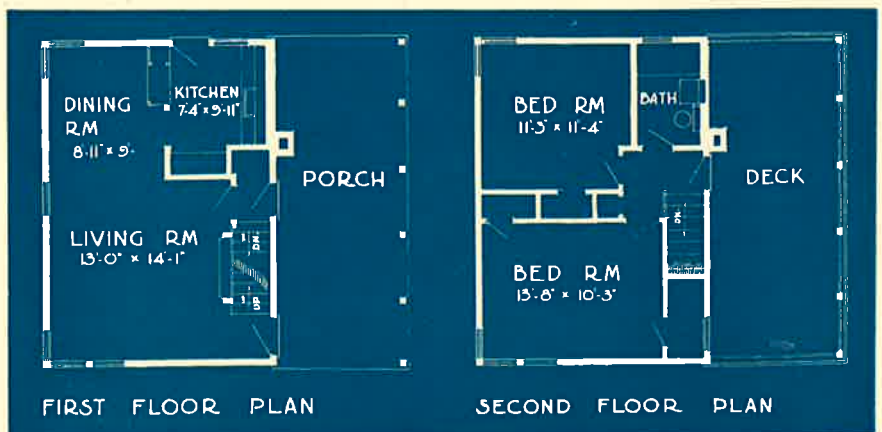
IF YOU are attracted to the modern types of architecture and if you particularly favor large porch areas, this 1-F version will appeal to you.

The area formerly allotted to a garage has been devoted to an open porch 10' x 25', which certainly compares most favorably in size with those found on \$10,000 houses. The open deck above, communicating with the upstairs through a door leading from the hall at the top of the second floor steps, is of the same dimensions as the open porch below, and the guard rail around this deck coincides with the horizontal siding members which band the house between the two sets of windows.

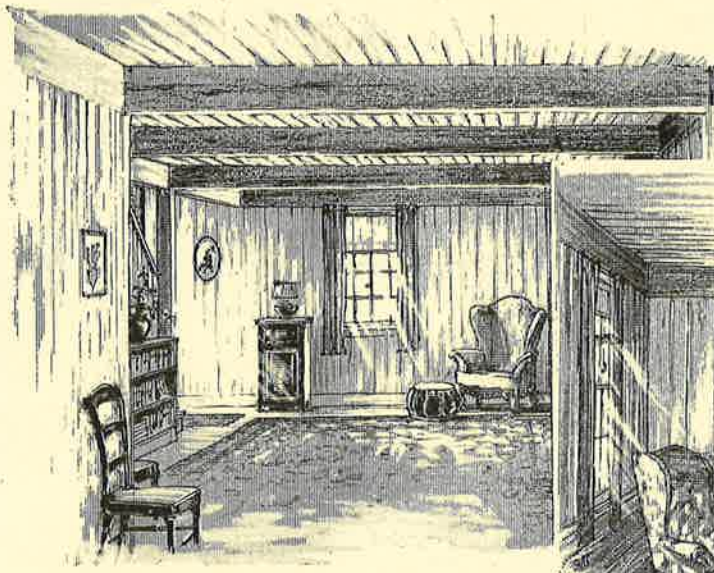
The flat wall surfaces of the house above and below this horizontal band may be made either of tight-fitting flush boards or exterior plywood. The most distinguishing feature of this exterior is the corner windows, which have the advantage of admitting a large quantity of light while preserving intact interior wall areas which, in the more conventional houses, are frequently divided by windows.

The roof of Design 1-F is of the hip type—the only instance in which this roof shape has been applied to the fundamentally low-cost floor plan.

All-in-all, Design 1-F would not be constructed where primary consideration is cost, since the hip roof is slightly more expensive than a simple gable roof, and since the other design variations noted will probably slightly exceed in cost more traditional exteriors.



. . . Structural Economies Can Be Made to Contribute to Interior Decoration . . .

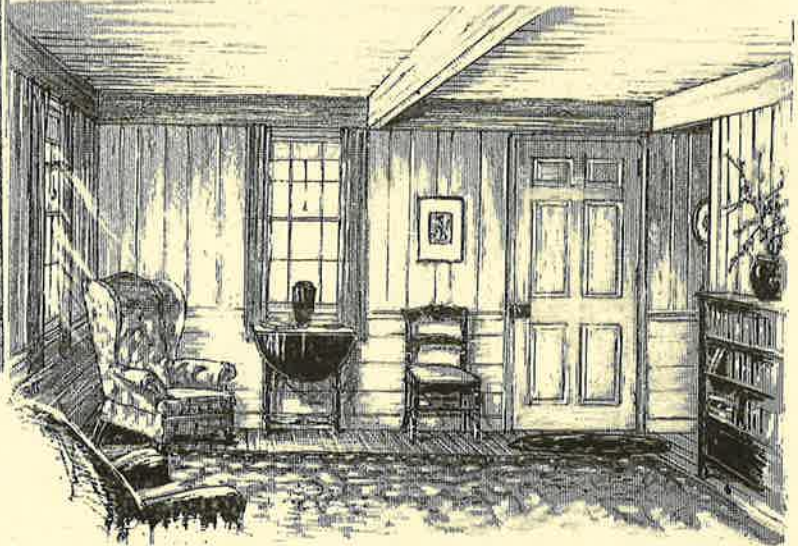


Plank floors, an old-time means of saving money in the construction of larger structures, have now been applied to low-cost residences by the Technical Committee studying National Small Homes for 1939.

This system not only saves material and labor, but because ceiling beams are exposed, contributes definitely to the decorative effect of the home interior. Thus, a move primarily intended to save a few dollars, produces a more interesting interior.

The illustration directly above shows the application of the plank floor to the two-story houses in this booklet.

The exterior appearance of your house is important; but you spend nine-tenths of your time inside, so no matter what the cost, it is imperative that the inside have a satisfactory and pleasing atmosphere. This point has been as carefully watched by the designers of these homes as any other feature.



This illustration shows plank floor construction in the one-story houses shown in this booklet. Complete details on the method of applying this money-saving system are a part of every set of plans distributed to inquirers who read this booklet.

. . . If You Need a Low-Cost Farm Home Examine This Specially-Prepared Variation . . .

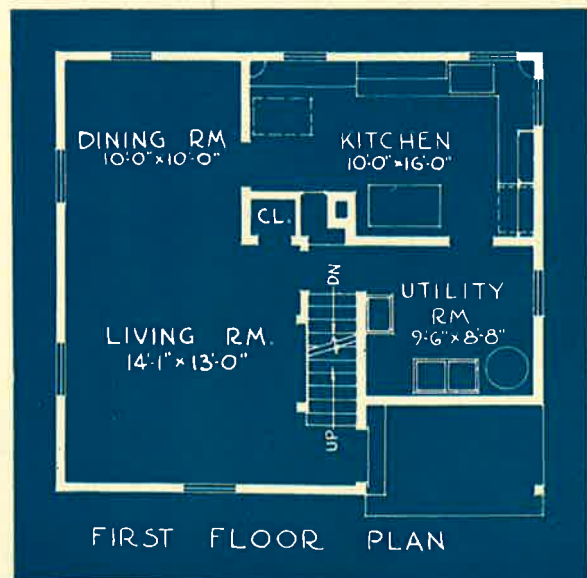
THE editors of THE FARMER'S WIFE magazine have adjusted the floor layout of the two-story Demonstration Houses to fit the particular needs of the family which builds one of these designs as a farm home.

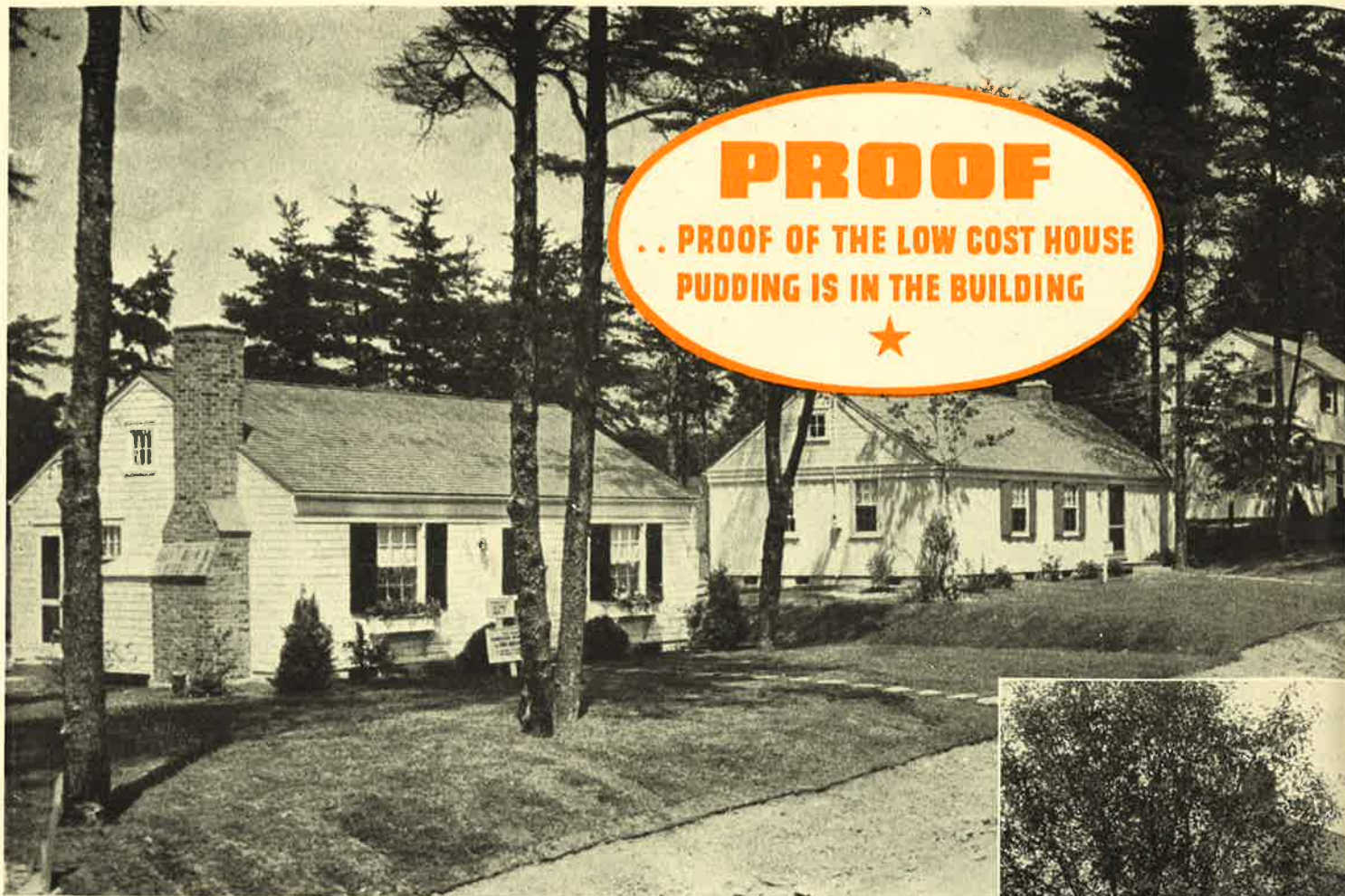
This plan illustrated at right recognizes that on the farm the kitchen is the room around which family life revolves. Meals are larger for larger families and the family often eats in the kitchen.

The farm kitchen is arranged so that work moves steadily from right to left, from refrigerator to preparation center and sink to stove and then to the table, with a minimum of back tracking. The dishes and kitchen linen are stored in the handiest place—between sink and table. The utensil cupboard beside the stove contains utensils and serving dishes used at the stove. The dining corner, with its built-in seat and full length window, is cheerful and pleasant. The kitchen also includes a cleaning closet and the extra food storage so necessary on the farm. Adjoining the kitchen is a utility room, where men may wash and hang up outdoor clothes, then pass to the dining room without going through the busy kitchen.

This floor plan will fit the exteriors illustrated for houses 1-A-B-C, and will fit houses D and E, if the garage space in these houses is used for utility room. Design F can also be used if the porch is enclosed.

Plans are available for this farm home, based on Design 1-E.





PROOF

**... PROOF OF THE LOW COST HOUSE
PUDDING IS IN THE BUILDING**



The **LUMBER INDUSTRY DEMONSTRATES
THROUGH ACTUAL CONSTRUCTION THE**
Desirability of Low-Cost Wood Homes



One of the first designs constructed in the experimental building of the National Small Homes Demonstration to determine the most satisfactory type of plan for lowest cost Small Homes, was the two-story "D" design of 1936, illustrated at left, constructed in Bethesda, Md., a suburb of Washington, D. C., at a cost of approximately \$2500.

With complete equipment, land, landscaping, and many extras, the completed property sold for \$3720.



This view looking down Cedar Lane shows the group of three experimental designs of the National Small Homes Demonstration. The first is a five-room, two-story house, the second is a four-room, one-story house, and the third is a six-room two-story house. Each sold for less than \$4000.

NEAR Detroit, Michigan, are a half dozen great automobile manufacturers as proving ground for their automobiles under conditions simulating actual conditions to be found in the United States.

It is easy to prepare plans and designs for a new automobile but only through the actual construction of such typical families can the performance and adequacy of the design be proved.

As proof of the stamina of a new automobile the efficiency of the low-cost house must be a matter of course.

National Small Homes Demonstration, Inc., is now engaged in the process of finding out the least expensive method of construction, the least labor, and arrangements which prove most efficient.





...e, in Bethesda, Maryland, illustrates demonstration low-cost homes built by from FHA designs, in 1936. The he second is a four-room, one-story story. All were equipped with base-00, including land.

...t tracts of land which have been set aside by the ...ounds on which to test the durability of their new ...al driving conditions on the best and worst roads

...small homes which can be estimated at low cost; ...homes and their month-by-month occupancy by ...of the plan be tested.

...can be illustrated on the proving ground, so the ...t actual use.

...as constructed 11 small designs for the sole pur- ...nstructing low-cost houses, designs which require ...t satisfactory to the occupants of low-cost homes.

Size of income by no means limits the size of a family. Some of America's largest families are found among folks with lowest incomes. This means that any solution of the lower cost home problem must make provision for a wide range of family sizes and provide accommodations of from one to four bedrooms.

Preferences as to exterior style, too, must cover a great range. The buyer of a small home has the same right and usually the same desire to express individual taste as the builder of a \$20,000 custom-built home.

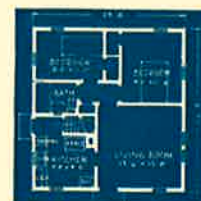
To cover, therefor, a wider range of size and style the National Small Homes Demonstration, Inc., built during the summer of 1938 a Demonstration Small Homes Community—Fairway Hills, Montgomery County, Maryland. The large photograph above shows the setting of Wagner and Barr Lanes, containing eight well-studied and engineered small home models.

The houses feature all styles of popular American architecture and range from a one-bedroom, basementless cottage, costing less than \$2300 for labor and materials, to a two-story, four-bedroom, seven-room house, costing about \$4000 for labor and materials.

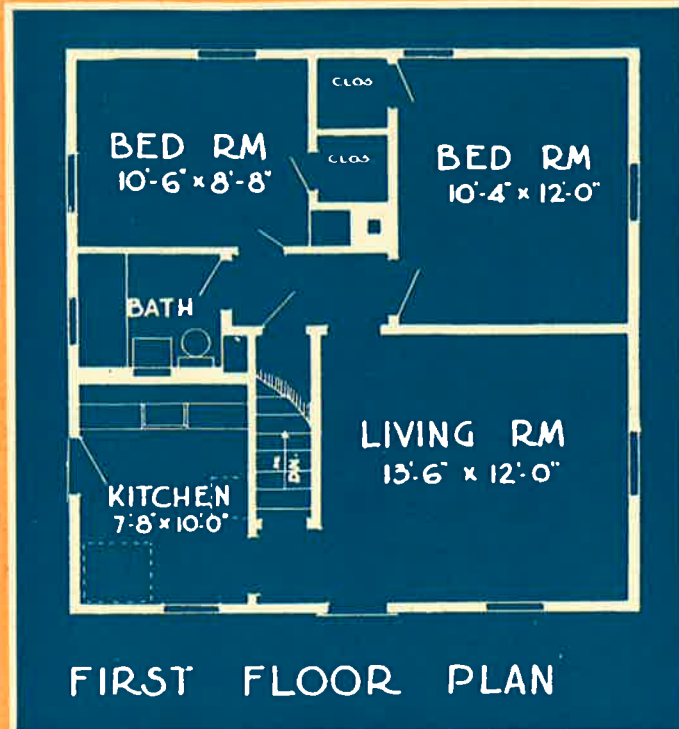
More than 10,000 individuals availed themselves of the opportunity to reproduce these National Small Homes during the latter months of 1938; and thousands of pages in popular magazines were devoted to this interesting proving ground for low-cost homes instituted by serious-minded building manufacturers as a cooperative measure to help solve a growing national problem.

At right is another of the 1936 group of experimental houses built by the Demonstration near Washington. This is a one-story, four-room bungalow which, like the two-story "D" house opposite, includes a basement.

Construction materials and labor on this house were slightly under \$2500. The total cost of the property, including land, landscaping, and all necessary equipment in the house, plus extras, was, similarly, around \$3700 . . . more than 300 prospects sought to purchase this little Demonstration Home.



Demonstration Home No. 2



THERE is a variety of opinion as to just what constitutes a minimum house. By minimum is meant a house which is *large enough* to provide for the essentials of comfortable and convenient living without the frills, and *small enough* and simple enough to be produced at the lowest possible cost for a detached structure.

Students of building construction have long known that a square structure is most efficient in its utilization of material and labor. Builders have also become convinced, over the years, that the per-cubic-foot cost of houses under five rooms is usually lowest in a one-story structure.

The investigations of the Technical Committee of the *National Small Homes Demonstration* bear out these premises and for its lowest cost detached home it has developed the exceedingly simple, compact, four-room bungalow, the floor plan of which is illustrated on the left. The ground floor area of the basic structure is 25'x25'.

APARTMENT HOUSE SPACE AT HALF THE COST . . *Plus Greater Privacy and the Accumulation of an Owned Equity . . .*

When a small American family having two or three members seeks low-cost accommodations, the natural tendency is to turn to rented "rooms." Such accommodations usually take the form of flats, portions of larger houses, or apartments. Ordinarily, such accommodations offer less usable living area than this basic Design No. 2, which in most communities may be purchased on a monthly payment plan for less than the rent of flats, apartments and "rooms," which offer none of the advantages of a detached individual Small Home.

In most cases the monthly payments on this house will be less than \$20.

Three different houses of this size and approximate floor plans have been constructed by NATIONAL SMALL HOMES DEMONSTRATION in an effort to test their practicability as minimum houses. Special attention and special effort have been devoted by this cooperating group to the lowest-priced practical house. After careful calibration of technical construction factors involved and careful observation of the performance of the houses when occupied by typical American families, the Technical Committee feels that a house of this size and style must some day assume the role of the "Low Priced Car" of American Small Homes.



. . Cape Cod Simplicity

THE white clapboard house with a brown or green roof and green slat shutters has been the most popular exterior style of architecture in America for nearly 200 years. This color combination was originated in the early New England days and nine out of ten Americans still favor Colonial treatment and Colonial decoration.

It is natural and fitting that this low-cost minimum home should be so treated, and when properly situated upon an adequate lot, decorated with an inexpensive fence or two, and equipped with shrubbery, this home, although small, maintains the dignity and good taste of more costly structures.

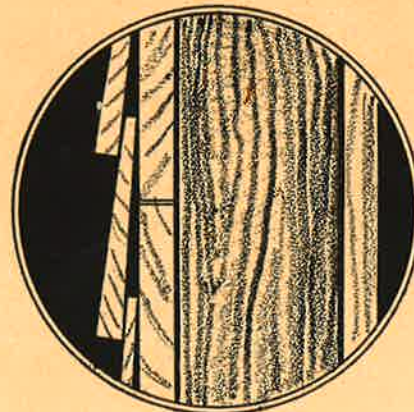
In floor plan this low-cost home is the essence of convenience, as all rooms rotate around a small central hall, all rooms have cross ventilation, and all rooms have adequate furniture space. There are two large closets—one for each bedroom—and a small linen closet, which may be opened from either the small bedroom or the hall. In addition there is an extra, full-size closet opening from the back hall over the stairway to the basement. This closet is lost in the event that a stairway is built to the second floor, but the extra space gained there will more than compensate for it. The bath room is full size and conveniently arranged, with a small closet area in one corner which may be used for medical supplies or linens. The kitchen, as large as that found in many \$6000 homes, contains a door which communicates directly with the exterior and is conveniently located with reference to the cellar-way. The kitchen has been made large enough to permit a dining table in one corner.

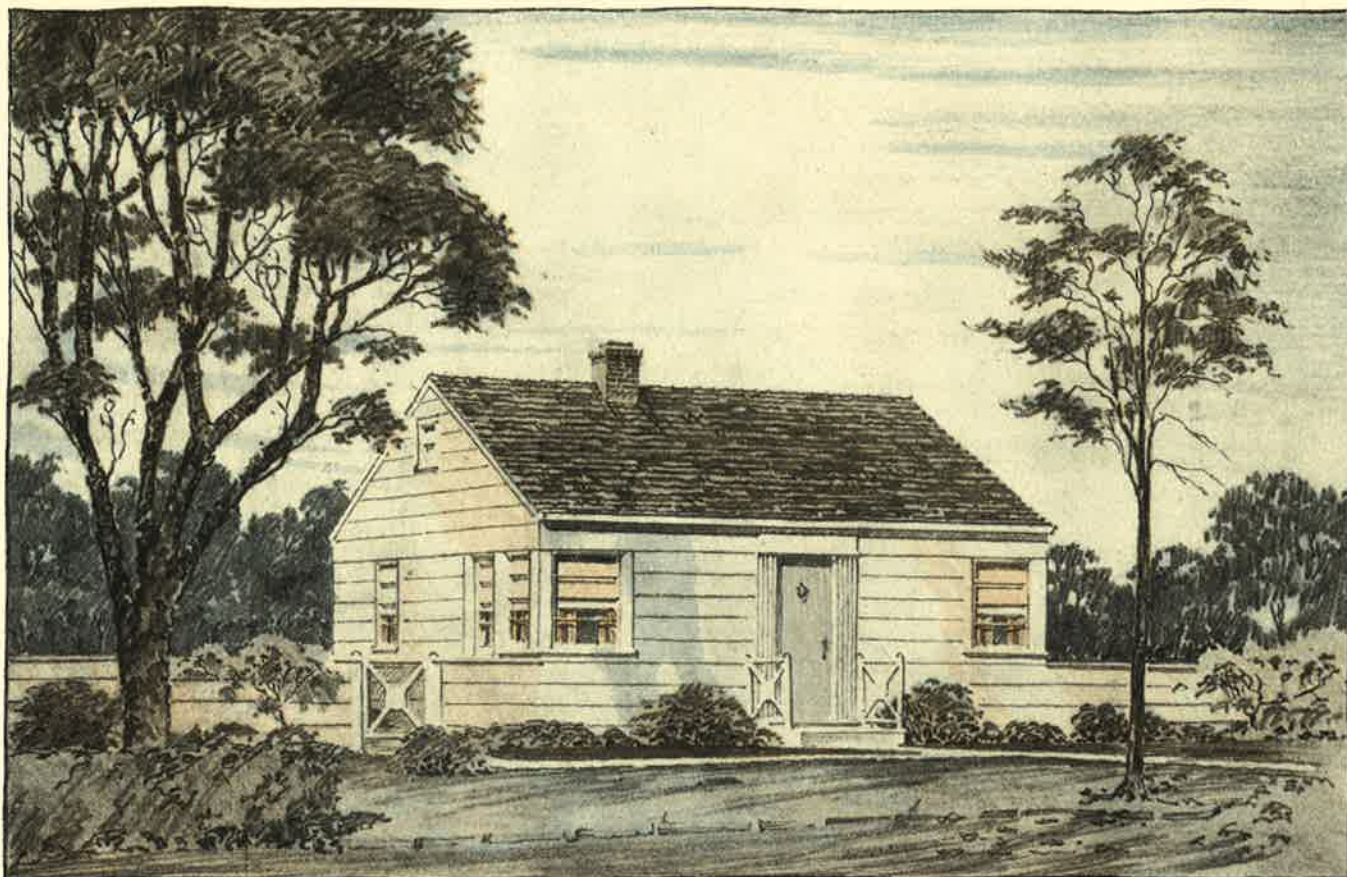
Good bevelled siding of wood is the modern counterpart of Colonial clapboards, which are still serving many of the old New England residences after more than 200 years of use.

Not only is this type of siding warm and weather-proof, but it constitutes the least expensive permanent exterior side wall material for low-cost homes.

Many siding patterns are available to the low-cost home builder. The cost varies but slightly, and a wood siding may be found to express practically any architectural theme.

The cross-sectional illustrations on the following pages offer five different side wall possibilities.

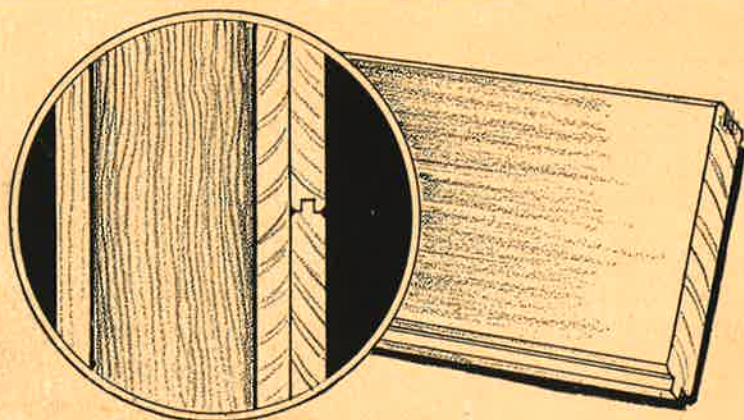
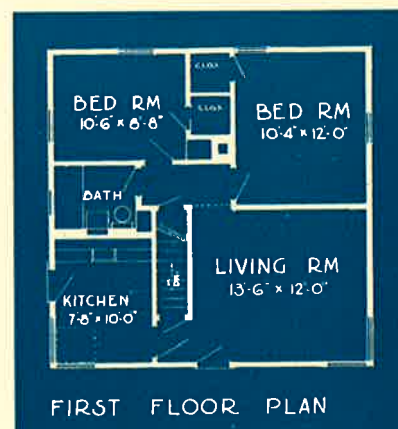




. . . A Corner Windowed Cottage

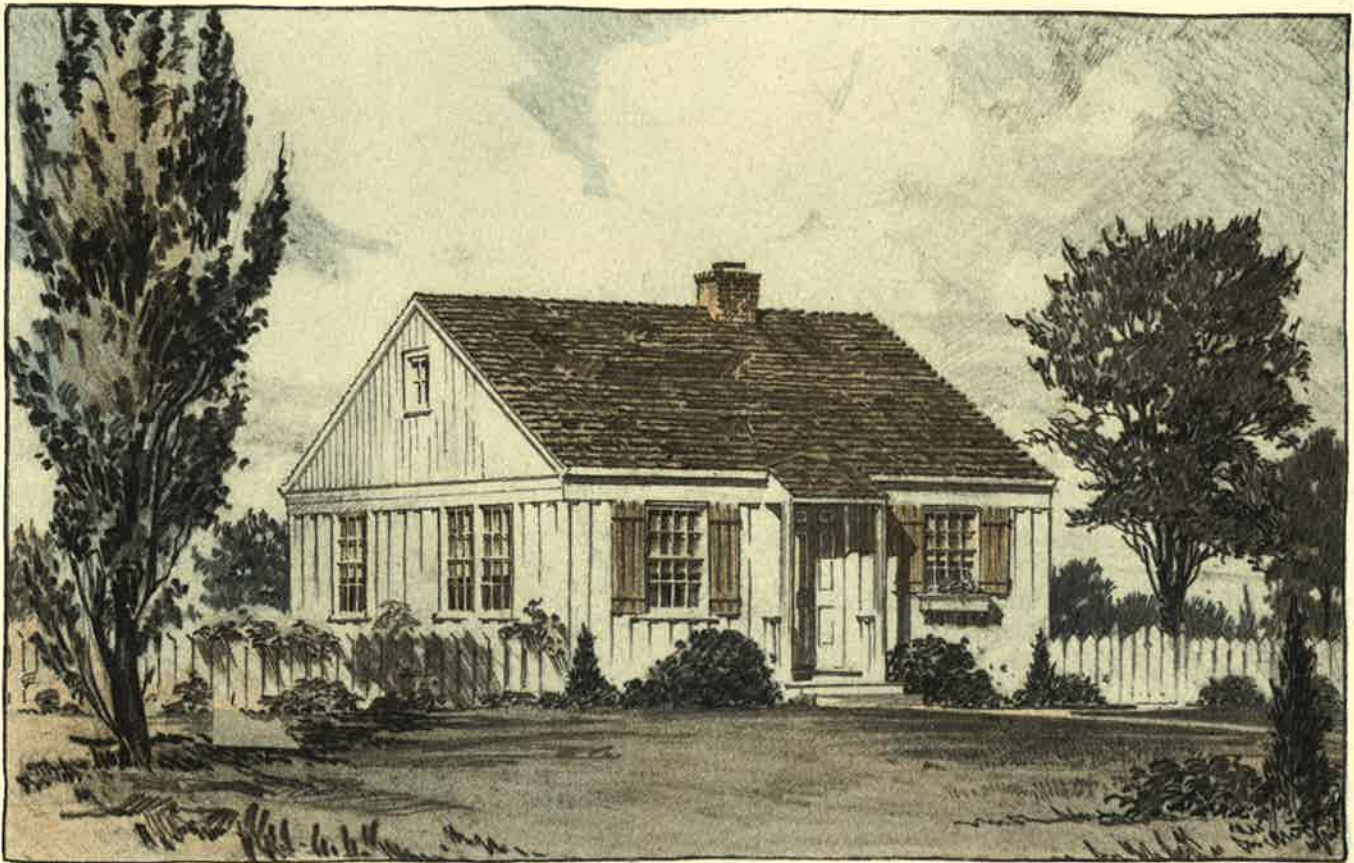
THERE are literally hundreds of exterior patterns and details which can be arranged to completely change the exterior appearance of basic Design No. 2. While retaining traditional siding and traditional roof slope, a restrained modern atmosphere has been imparted in variation 2-B, illustrated above, through the non-Colonial treatment of the front door and the corner windows, which are illustrated without vertical muntins.

The corner windows have been applied only on the front corners of the house, remaining the same as house 2-A on the rear. This type of treatment permits larger expanses of unbroken wall area in the living room and makes possible a greater concentration of light on the dining table in the kitchen.



Horizontal lines seem to fit well with modern architecture, which emphasizes smooth surfaces and light shadow lines.

For this purpose a matched siding of the type illustrated at the left is ideal. Many different variations in joints may be obtained. This one illustrates a slight "V".



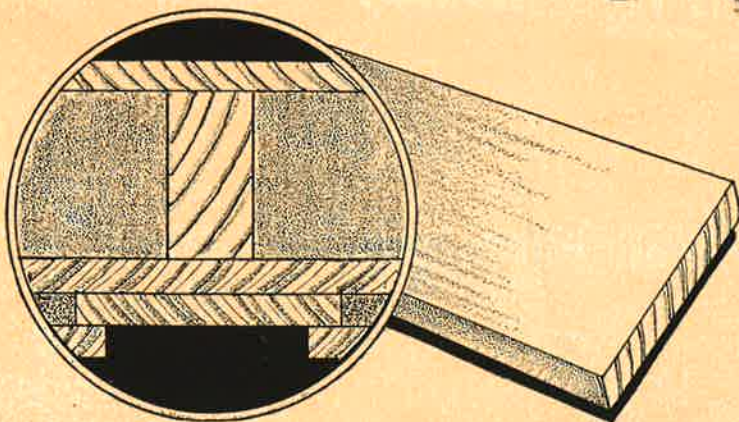
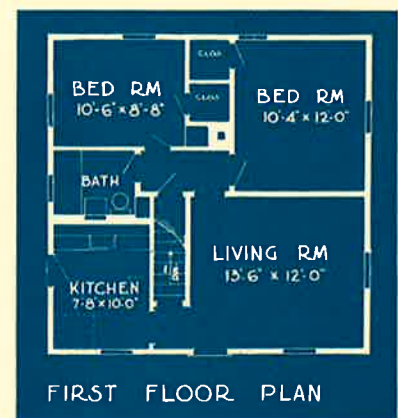
..... *Farm House Simplicity*

MANY designers of small houses make a deliberate attempt to reach back toward the more rustic type of architecture which has produced so many quaint effects.

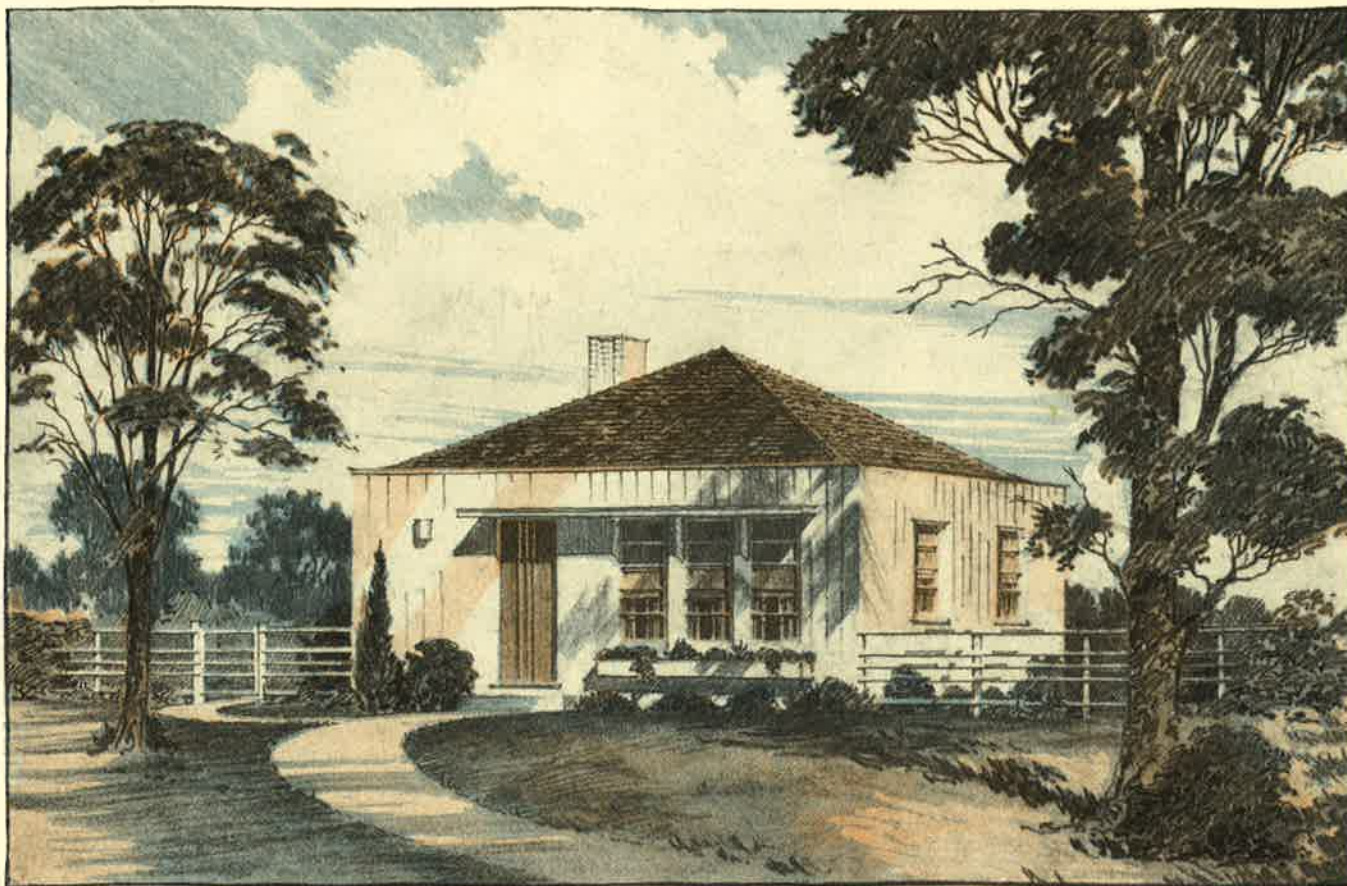
One of the frontier methods of siding houses was the use of vertical shakes, and the same type of vertical accentuation has been retained by the use of alternating boards in design 2 C.

This pattern lends itself admirably to stain, as well as paint, and the same feeling can be emphasized by the use of log cabin siding in place of the boards. If this design is used as a week-end cottage or a summer home, one of these effects would be most appropriate.

The internal plan of the house has not been altered and it will be found that 2 C is in approximately the same price class as 2 A. Note that board and batten shutters have been substituted for the slat shutters of 2 A.



Boards and battens are easy to apply and are weather-tight. Practically any handy man can construct a side wall of this material and no special milling is required to produce the siding boards. This type of siding is well suited to summer camps, mountain cabins and sea shore buildings.

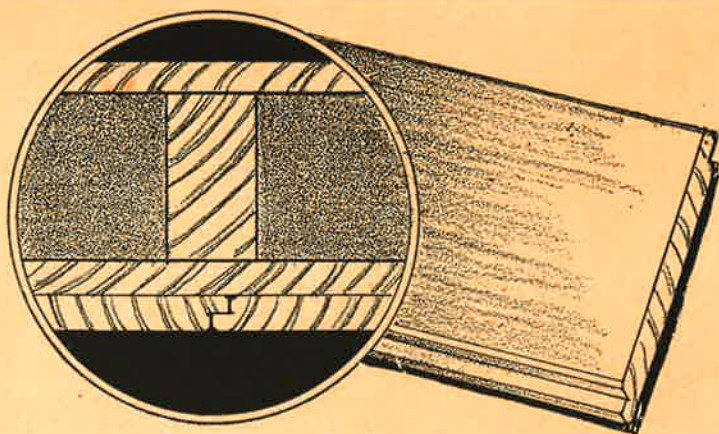
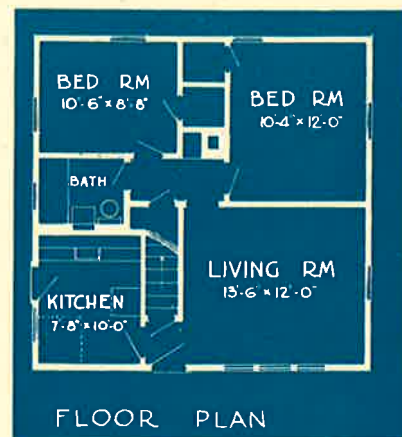


..... *Modified Modern*

FOR the young couple who feel that traditional Colonial exteriors are a little too conservative for 1939, *National Small Homes Demonstration* architects have evolved the novel modern "overcoat" for basic Design No. 2, illustrated above.

The pyramid roof, the grouping of the front windows and the use of vertical board siding has completely transformed the appearance of the original Colonial cottage without important alteration on the interior.

This design may logically be finished with a natural effect or one of the lighter paint tones. A modern and interesting suggestion for this house is the use of aluminum paint for the side walls, with jet black window muntins and a deep blue front door.



The smooth surface of flush boarding has here helped produce a novel effect.

This vertical boarding of matched members varies slightly from the flush boards on page 20, in that a shiplapped rather than a tongue-and-grooved pattern has been used. Either moulding would work equally well with this house.

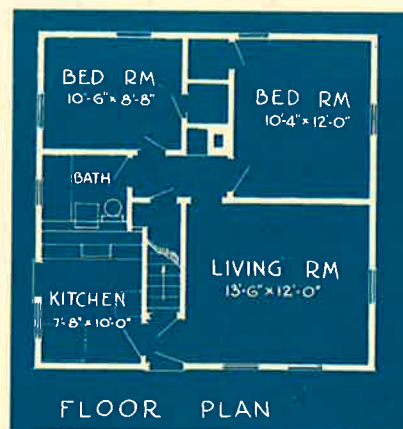


... A Cozy Shingle Version

SHINGLES are often associated with cozy cottages, and this house lends itself well to the Cape Cod type of treatment illustrated above.

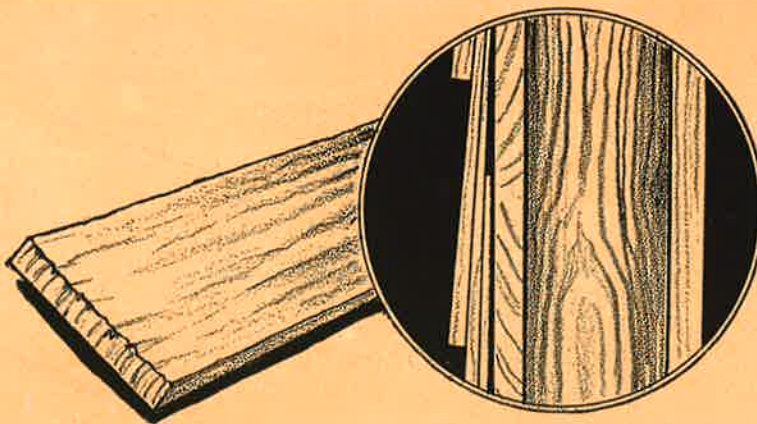
Windows on the front of the house placed at one side of the door, and porch roof in the same plane with the roof of the house, helps the illusion of greater length.

Of course any exterior wood pattern illustrated in connection with basic Design No. 2 is interchangeable with any of the exterior shapes illustrated. The Cape Cod version of the house above would be equally appropriate in either wide or narrow Colonial type wood siding, and the porch may be attached to any of the other exterior editions with proper roof alteration. For Design 2 D, on page 22, a flat porch roof is indicated.



Note the build-up of thickness presented to the weather when wood shingles are properly lapped, as in the illustration at right.

Side wall exposure may be slightly greater than for wood shingles used on the roof. Shingles make an ideal overcoat to renew the outside of an old building.



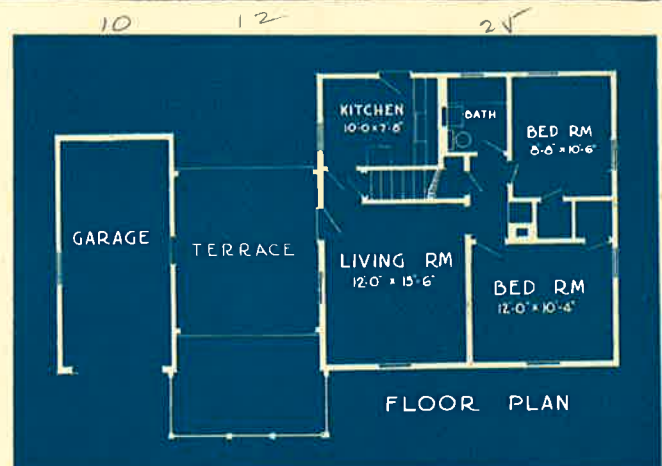


... For the Suburbs

MANY appendages may be added to basic Design No. 2, which originally included neither porch nor garage. One of the most simple means of securing both a covered porch area and a garage, so assembled as to add materially to the mass of the house, is the design illustrated above.

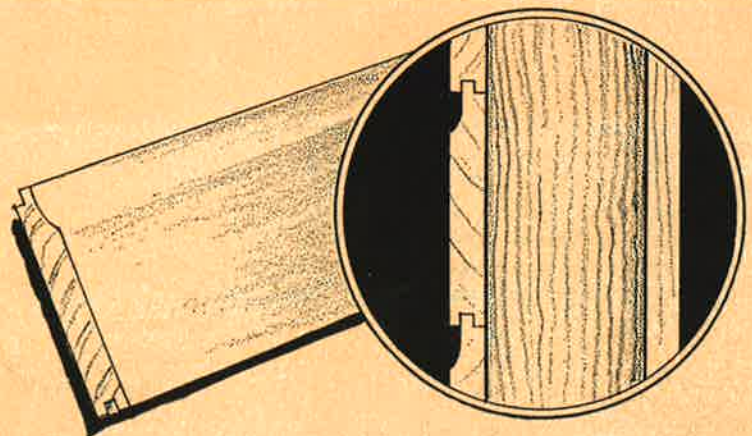
The floor plan of the interior is exactly the same, but that side of the house which is facing the street in previous exterior drawings has been turned toward the garage, and entry to the living room is now from the side underneath the covered way, which also provides a weather-protected passage from the garage.

A site of at least 75 feet frontage is desirable for Design 2 F.



When no sub-siding is used it is necessary to have a full thickness of tightly-matched weather boarding.

The type illustrated at right, of which many different varieties and patterns are available in almost all woods, is commonly known as "drop siding". This type of siding is easy to install, inexpensive and impervious to the elements.





SOME of the emotional high-spots of life are . . . your first day at school . . . graduation . . . wedding day . . . and the arrival of your first child. All of these landmarks we pass with fond memories; but



MONEY

there should be another which is really in the same class of epochal milestones . . . the day we see the home we have planned begin to rise from the land we have chosen for it. The planning and the building of at least one new home should be experienced once by every family—seeing your own ideas executed in wood, plaster and masonry, makes any other purchase you ever made in your life pale into insignificance. A ride in the brand new car is pleasant; but it can't hold a candle to the first night you spend in the home YOU BUILT. The car is lovely . . . but someone else built it . . . the house is *yours*.

Having a new home is more often than not a matter of wanting one . . . a well planned house is such good security for money today that thousands of dollars of idle investment funds are glad to find investment in owner-built and owner-occupied new homes.

To those who have yet to do it, new home building sounds a great deal more involved than is the case. Suppose we have spent many evenings looking at plans and designs and tentatively decided on the size and type of home which will fit our family



PLANS



*... . Your
Lumber Dealer
is Best Fitted to
Be Your Guide
to The Acquiring
of a New Home
- - - which You
Can Afford.*

. . . there are two things we need to find out before work can actually begin: (1) What will the house plus the lot on which we would like to build, cost? (2) How much can we borrow on the combined value of the house and lot?

If the family exchequer can raise the difference between these two items the matter can be settled promptly. If we have previously been renting, the chances are that the monthly payments will be less than the monthly rent check.

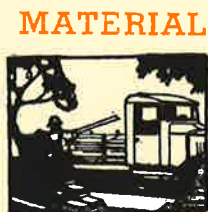
From here on there is more fun than you have ever had in buying anything, *if you will take the time to enjoy it*. Don't miss the "days of real sport" . . . when you are matching the color of the bathroom tile to your new bath rug and finding paint which just fits the tone you want in the living-room.

Even a hard job is easier when you have good tools . . . planning your new home is not a hard job . . . it is fun and you will get a much greater "kick" out of it if you have everything you need to make up your mind, at your finger tips.

That's where your Building Material Merchant comes in. He has been in the business of helping people find things for years. He can help you at every step . . . and he will help you find the money, prepare the plans, select the material and let the contract. GO TO SEE HIM.



BUILDING



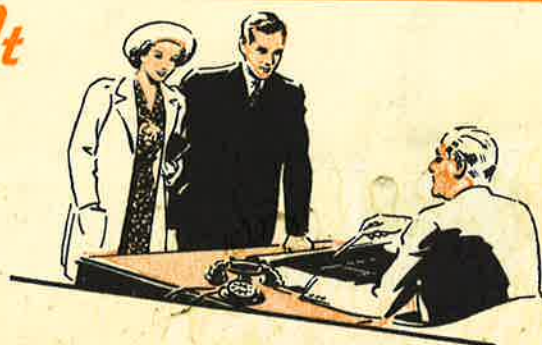
MATERIAL

EXPERIENCE COUNTS .. Use It

Year in and year out the ebb and flow of the home building tide passes through the offices of retail lumbermen. The retail lumberman's "ringside seat" has enabled him to extract from the parade of new homes most of the lessons which you should know before you build.

This fund of practical information on what to do and what not to do and how to begin your home building project, can be extremely valuable to you . . . save you many hard-earned dollars.

When thinking about building, go to your building material dealer and get latest helpful suggestions on land, financing, plans, building and finishing. He has it or knows where to get it promptly.



CAN LOW-COST WOOD HOMES BE ATTRACTIVE?

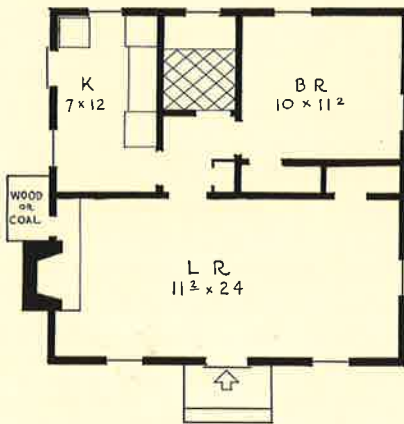
1938
DESIGN 1



1938
DESIGN 2



See for Yourself . .



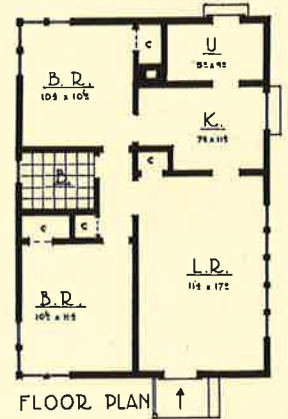
VISITORS to the "Laboratory Community" of the National Small Homes Demonstration during 1938 were heard to remark repeatedly: "I never would believe that a small, low-cost home could be so attractive."

It is not necessary to make sacrifices in the quality or attractiveness of interior decorations and equipment, providing the rest of the low-cost home is well engineered.

The two homes illustrated above are minimum types providing one and two bedrooms on practically the same foundation size. Design No. 1 is called the "garden apartment" and is intended for the occupancy of two people, who may later wish to add to the house.

While only slightly larger, Design No. 2 offers two bedrooms, gained by a slight reduction in the size of the living room.

Design No. 1 is executed with a traditional Colonial exterior, while Design No. 2 features certain modern detail. Neither house has a basement. Both are truly low-cost homes.



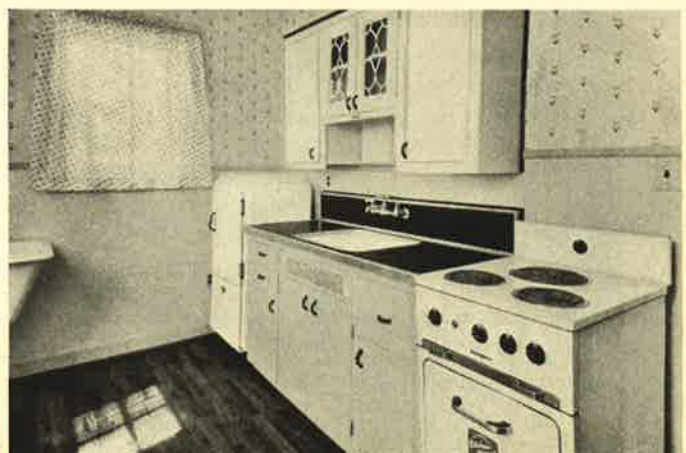
The two rooms illustrated below compare favorably with similar rooms in houses costing two and three times as much as the "garden apartment" home, from which they were taken.

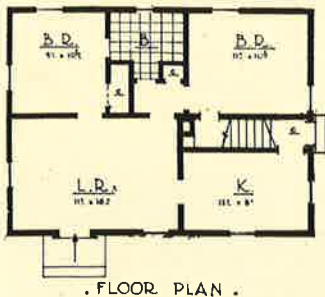
The living room in this Demonstration Home was completely paneled in warm, friendly wood and offered an expanse 11 x 23 feet.

While small, the kitchen of this minimum house features equipment which is of the same quality

and workmanship of that found in any new home. This equipment consists of ample factory-manufactured kitchen cupboards attractively finished, a porcelain sink, a well known brand of range, and an excellent refrigerator.

In addition, a single laundry tray was included in the kitchen for small, home washings. There is sufficient area in one corner to provide for a breakfast table and two chairs.





1938
DESIGN 3



1938 Exhibit Home No. 3 is a complete four-room home in the sense in which the word "complete" has been most readily understood in the past. This means that the house has a full basement and employs traditional construction in every respect.

For many years, the "cost-versus-the-utility" of the ordinary full basement has been a question of import to prospective home builders, few of whom could offer definite ideas on the subject.

By spending the same amount of money for two houses of identical depth and the same general specifications, one *with* and one *without* a basement, it was thought that an excellent graphic comparison between the cost of the basement and

the extra space which could be built above ground with the money saved on the basementless house, could be obtained.

This procedure was employed for the erection of Houses 3 and 4, which stand side by side. Naturally House No. 3, with its basement, sets the pace for cost and the extra space in the living room and extra bedroom in No. 4 directly represents the money which has gone into underground construction in No. 3.

Architecturally, Design No. 3 is a slight departure from the traditional, in that decorative corner and window trim and flush siding have been employed. These items are insufficient to throw the two houses out of balance because they are matters of form and pattern rather than of additional cost.

Your Money Builds Most When Used Above Ground

If it were possible to saw completely through the roof of this house about a foot to the left of the main entry door and hold up in one hand the end which was detached from the house, it could be said that this amount of construction represented money invested in excavation, masonry side walls and concrete floor for the basement in House No. 3.

Making due allowance for the uneven nature of the ground on which No. 4 was built, the two houses (three and four) are almost identical in cost. The overall length of House No. 3 is 29' 7", while the overall length of House No. 4 is 33' 6". The money ordinarily spent to build a basement in an ordinary four-room bungalow has added approximately nine feet of above-grade length.

In plan, Design No. 4 is a simple rectangle, the sleeping

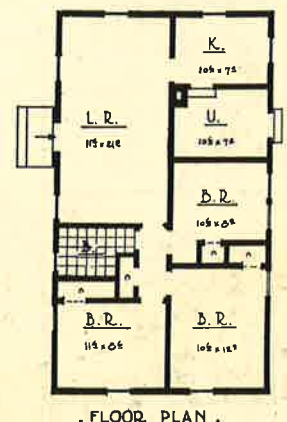
accommodations grouped around a hall at one end of the living room and mechanical accommodations grouped along-side.

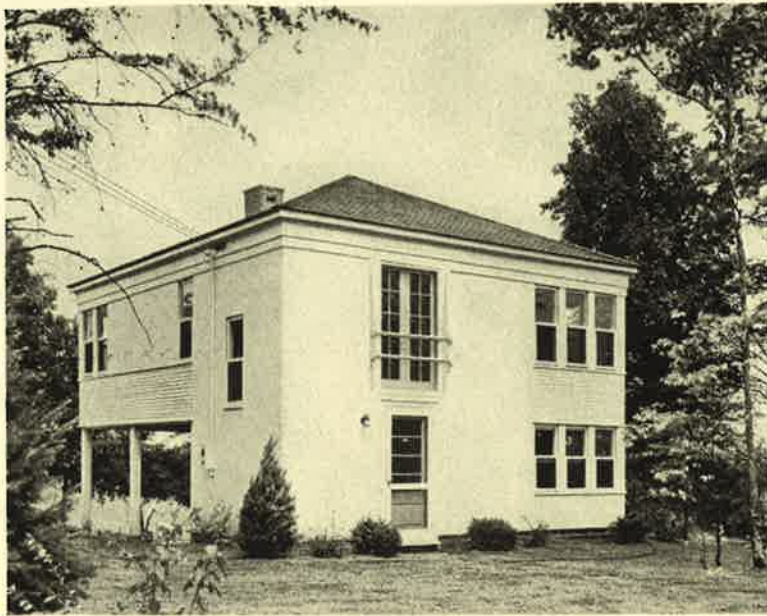
If it were desired to retain this size and shape and still construct a basement, it would be possible to utilize the present kitchen area for a bright, well-lighted dining room corner, considerably larger than the present kitchen, since the stairway to the basement would occupy only a portion of the present utility room.

Although several hundred dollars less in cost, it is evident that this design will accommodate approximately the same number of people as Home No. 6. (Page 28). This cost reduction is attributable to the fact that there is no separate dining room area and the house is without a basement.



1938
DESIGN 4





★
1938
DESIGN 5

FIRST FLOOR

An Above-Ground Basement

1938 House No. 5 was conceived from the basic premise that nearly one-half the space of the average one-story bungalow is wasted because of incomplete utilization of the basement area—a costly portion of the house which is only about 20 percent utilized by the mechanical facilities ordinarily housed there.

If it were possible to raise the ordinary small bungalow with basement up out of the ground and substitute wood construction for the masonry construction no longer necessary, the net result would be House No. 5.

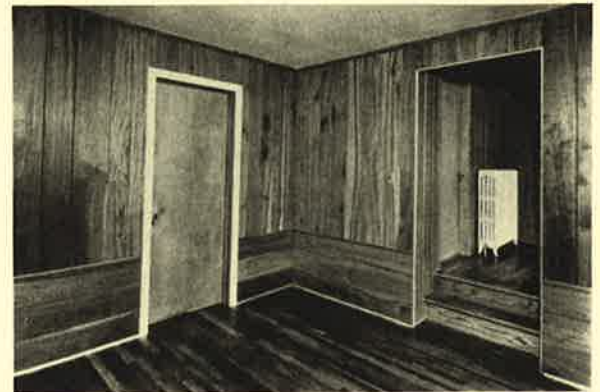
After the accomplishment of this first step it is no longer necessary to crowd into what is now the second floor all of the functions which were performed when the second floor was the first by virtue of the basement being under ground.

By moving the entry area, cooking, dining and automobile storage facilities to space ordinarily wasted in the basement, we have relieved the pressure on the second floor and eliminated crowding. In other words, underground cubic footage frequently wasted has been preserved for living quarters, giving the house a 100 percent record for unwasted space.

An uncommon, but practical, aspect of the design is the combination porch and garage. In the cold months this space may be used as a garage; but in the warmer days of spring and summer, when a garage is no longer so necessary, it is easily converted into a porch.



★
1938
DESIGN 6



Double Overhang Helps Second Floor

1938 House No. 6 was designed for economy below ground and efficiency above. This was achieved by using a foundation size for a five-room house and allowing the second floor to overhang the first floor.

The overhanging second floor reduces the cost of foundation masonry, excavation and similar basement items without reducing the area of essential living quarters. This six-room house with three bedrooms and bath upstairs and living room, dining room and kitchen below, employs a hardwood wainscoting throughout the living and dining rooms.

The home is in the New England architectural tradition and offers facilities for a good sized family at a much lower rate than most six-room houses. It will fit three ways on most lots as the front, back or end may be put to the street.



Most Space for Least Money



APPLYING the same principle of small foundation area as in 1938 Exhibit Home No. 6 to 1938 House No. 7, the architect has added a garage and created greater second floor living space by carrying the roof high at the back. This house is the largest of the "Laboratory Community" group.

The high roof permits designing of an extra-large rear room over the garage which is reached from a half-landing on the main stairway. It may be converted into an additional bedroom, or serve as a storage or play area.

Three bedrooms and bath upstairs, living room, dining room, kitchen and garage downstairs make up the ultimate in low-cost construction for a large family. A wainscoting of wood was also used around the living room and dining room, similar in plan to that of House No. 6.

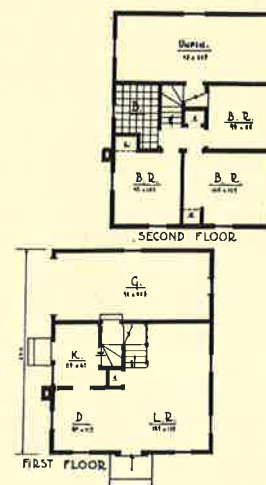
Large families often need low-cost homes. It is believed that no serious planning for the housing of families with low incomes should be without some prospective design which offers a large number of small rooms.

It is possible to house in a structure such as Design No. 7 a family with as many as four children of varying ages and sex.

The garage in this case may hardly be classed as an unnecessary luxury, due to the fact that it makes possible an extra bedroom at a cost of some additional sidewall, a small amount of roof and some extra plaster and millwork. It is not too much to say that either the garage or extra room above it has been thrown in, since any one of these items added independently would probably have exceeded the present cost of both.



1938
DESIGN 7



Following completion of the first floor framing, which includes a box sill, the remaining construction of House No. 8 differs radically and in most all respects from that of the traditional lumber-built house. The walls are composed of vertical 2x6 members, each edge of which is grooved. By alternating the planks back and forth, the edge of every alternate plank fits into the groove of its adjacent neighbor and every other plank extends approximately one-half inch beyond the surface of its neighbor.

In practice the construction of a "plank wall" home eliminates the three separate operations of framing, sheathing and the application of exterior siding. Since the amount of wood used in the wall is equal to the thickness of two ordinary boards, it is immediately apparent that the ordinary material employed for the frame or skeleton of a home is saved through this system. Approximately 1½ days were required to erect the wall of this house. Ordinarily this time would not be considered excessive for the simple operation of framing the house.



1938
DESIGN 8

How To GET THE *Best* IN YOUR WOOD WALL



Patterns and Sizes of Wood Siding

The first wood siding was rough hand-sawed boards which were lapped over each other to shed the rain. Planing machines were unknown in those days, so shiplapped or tongued and grooved joints could not be made. Later these boards, known as clapboards, were sawed with one edge thicker than the other so that they would fit more snugly against the framing. The bevel siding so popular today is, except for refinements in manufacture, almost like the clapboards made nearly three hundred years ago.

Bevel or lap siding is customarily made in 4, 5, 6, 8, 10 and 12-inch widths. The 8-inch and wider bevel siding is often called bungalow or wide Colonial siding. It is economically manufactured by "resawing" dry square edged surfaced boards diagonally to produce two wedge shaped pieces. These pieces of siding are usually $\frac{3}{16}$ -inch thick on the thin edge and $\frac{1}{2}$ to $\frac{3}{4}$ -inch thick on the other edge, depending upon the width of the piece. This method of manufacture gives one planed face suitable for painting and a sawed face which may be stained for rustic effects.

Wide bevel siding often has shiplapped or rabbeted joints so that the siding lies flat against the studding instead of touching it only near the joints as ordinary bevel siding does. This reduces the apparent thickness of the siding by $\frac{1}{4}$ -inch but permits the use of extra nails in wide siding and reduces the chance of warping. It is also economical, as the rabbeted joint requires less lumber than does the lap joint used with plain bevel siding. The rabbet should be deep enough so that where the siding is applied the width of the boards can be varied to meet window sill, head casing and eave lines as desired. Rabbeted joints are not so necessary in the 4 and 6-inch widths of bevel siding. These narrow widths of siding are usually but $\frac{1}{2}$ -inch thick, so rabbeting would make them too thin.

Rustic and drop siding are usually $\frac{3}{4}$ -inch thick and 6 inches wide, and are machined in a wide variety of patterns, the most widely used of which are illustrated in Figure 1. Drop siding has tongued and grooved joints while rustic has shiplapped joints.

Drop siding is heavier, has more structural strength and because of its design has tighter joints than bevel siding, so is often used on garages and barns where there is no sheathing, as well as on homes.

The increasing popularity of the cottage types of architecture is bringing about the more common use of vertical siding, particularly in combination with other types of wood siding. Vertical siding consists of matched boards 10 or 12 inches wide or of random widths, the joints of which may be V-cut or covered with battens. Battens may be placed over every other joint alternating with moulded or flush joints according to the effect desired. Often the vertical siding is run up to the eave line, and shingles or bevel siding are used in the gables.

Various types of unusual sidings are made to secure special rustic effects. One of the commonest of these is a thick siding made to give the appearance of logs. There are several patterns of it to resemble logs of different sizes, and the chinking which goes

between the logs. Such special sidings are used principally on summer homes, of course. Log cabin siding, used alone or in combination with other material, and painted rather than stained, may be very satisfactory in the expression of an ultra-modern effect. Its use in this connection is not limited to exteriors.

Wood shingles and shakes are often used for siding as well as roofing materials. Shingles are usually 16, 18 or 24 inches long, $\frac{5}{8}$ or $\frac{1}{2}$ -inch thick at one end, and $\frac{1}{16}$ -inch at the other. In addition to the types of shingles regularly stocked it is possible to secure shingles of special thicknesses, lengths, and shapes.

Shakes, either split or taper sawed, usually 24" or more in length, with thick butts make possible widely spaced, heavy horizontal shadow lines with interesting texture between.

Siding Sizes and Estimating Quantities

The nominal sizes which are used in computing the footage of lumber are based upon the rough green sizes of boards which are cut from the logs. These rough green boards shrink somewhat in width and thickness as they dry, and their size is further reduced by machining to pattern. The following table is an extract from the American Lumber Standards giving the nominal and finished sizes for siding to which, with minor variations, most siding is produced. It will serve as a sufficiently accurate guide for the design of exterior wall surfaces.

[The thicknesses apply to all widths and the widths to all thicknesses except as modified ¹]

Siding	Size, board measure Width Inches	Dressed dimensions	
		Standard thickness Inches	Standard face width Inches
Bevel.....	4	27/16 by 3/16	3 1/2
	5	10/16 by 3/16	4 1/2
	6	.....	5 1/2
Wide beveled.....	8	27/16 by 3/16	7 1/4
	10	9/16 by 3/16	9 1/4
	12	11/16 by 3/16	11 1/4
Rustic and drop..... (shiplapped)	4	9/16	3 1/8
	5	3/4	4 1/8
	6	.....	5 1/16
Rustic and drop..... (dressed and matched)	8	.....	6 7/8
	4	9/16	3 1/4
	5	3/4	4 1/4
	6	.....	5 3/16
	8	.....	7

¹ In patterned siding, 11/16, 3/4, 1, 1 1/4, and 1 1/2 inches thick, board measure, the tongue shall be 1/4 inch wide in tongued-and-grooved lumber, and the lap 3/8 inch wide in shiplapped lumber, with the over-all widths 1/4 inch and 3/8 inch wider, respectively, than the face widths shown above.

² Minimum thicknesses.

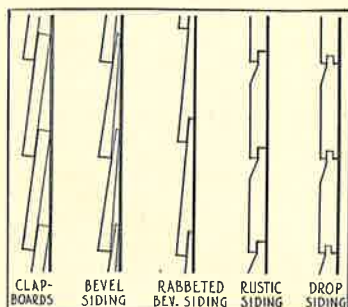


FIGURE 1

At the left is a thumb nail comparison of the end view of the five most popular types of siding in place. It illustrates the slight difference between drop siding and rustic siding and makes possible quick comparison of the most popular siding patterns.

FIGURE 2

It is uneconomic to buy good material and store it where it can absorb moisture and deteriorate even before it arrives at its proper place in the building. Well seasoned lumber should not be stored in the open without protection nor on wet ground.



In figuring the quantity of siding required for a home it is necessary to increase the square foot area of the walls, omitting openings, by enough to compensate for the machining of joints shiplapped or dressed and matched and the overlap of bevel siding. The following allowances are approximately those usually made:

Bevel siding	1x4 with	$\frac{3}{4}$ " lap	Add 45%
	*1x5	$\frac{1}{8}$ " lap	38
	1x6	1" lap	33
	1x8	1- $\frac{1}{4}$ " lap	33
	1x10	1- $\frac{1}{2}$ " lap	29
	1x12	1- $\frac{1}{2}$ " lap	23
Rustic & drop siding (shiplapped)	1x4	Add 28%	
	*1x5	21	
	1x6	19	
	1x8	16	
Rustic & drop siding (dressed & matched)	1x4	23	
	*1x5	18	
	1x6	16	
	1x8	14	

* Unusual sizes.

An additional 3 to 5 percent should be allowed for cutting and fitting around openings and under the eaves.

Species and Grades

Siding is graded under rules adopted by the regional associations of lumber manufacturers. The lumber dealer can readily advise the interested siding user concerning the grades and species available locally. A wide selection of siding suitable for any purpose can be readily purchased from the lumber dealer.

Shingle Grades

Shingles are usually separated into three grades. Generally speaking, the first grade is composed of clear shingles. The second grade consists of shingles with clear butts and admits defects in that portion of the shingle which will normally be covered in use. Third grade shingles are those which have defects other than permitted in the second grade.

Most shingles are made in random widths, varying in the No. 1 grade from 3" to 14" with only a small proportion of the narrow width permitted. Shingles of a uniform width known as dimension shingles are also obtainable. The latter are cut uniformly to widths of 4", 5" or 6", as may be specified. For side wall maximum exposure to the weather recommended for 16" shingles is 7 $\frac{1}{2}$ ", for 18" shingles 8 $\frac{1}{2}$ " and for 24" shingles 11 $\frac{1}{2}$ ". Shingles on side walls are frequently laid in what is called "double-coursing." This is done by using a lower grade shingle under the shingle exposed to the weather. The exposed shingle butt extends about $\frac{1}{2}$ " below the butt of the under course. When butt nailing is used a greater weather exposure is possible, frequently as much as 12" for 16" shingles, 14" for 18" shingles and 16" for 24" shingles.

Shingles should be applied with nails that are not likely to rust or corrode. At least $\frac{1}{4}$ " space should be allowed between shingles and it is frequently recommended that no shingle over 8" wide should be laid. Shingles wider than this should be split.

The use of corner boards or a mitered corner is optional . . . either will work well if carefully made. Corner boards are older, but still necessary to some architectural types.

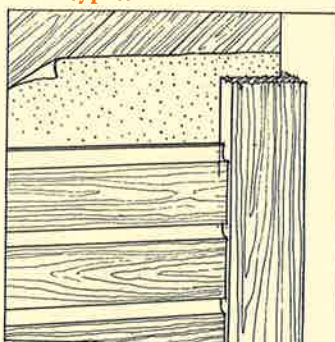


FIGURE 3

This is the right way to install a corner board. They should always rest on the sheathing itself and be separated from it only by building paper. The ends of siding butting into corner boards should of course be painted.

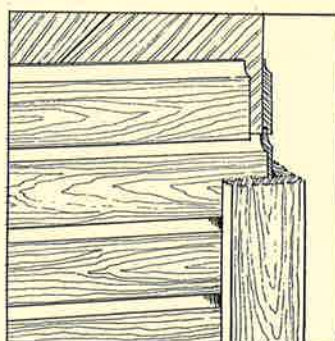


FIGURE 4

This is the WRONG way to install a corner board. It is perfectly evident that the little pockets caused by the moulded top of the siding running under corner boards permits the storage of water.

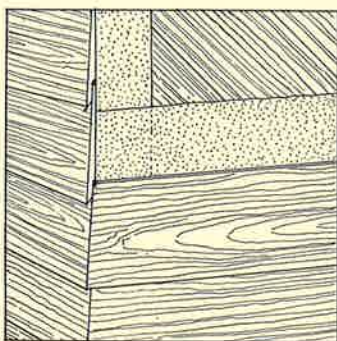


FIGURE 5

Unless well jointed, mitered corners will eventually admit water and cause trouble. Tight, careful miters, well cut for a perfect fit and jointed with paint is an essential requirement of a good siding job.

Application of the Siding

Siding is kiln or air dried to the necessary low moisture content by the manufacturer and delivered in that condition by the retail lumber dealer. It should be carefully protected from moisture after it is delivered to the job until the carpenters are ready to lay it. The lumber sheathed frame which is to receive it should also be dry. Then the siding will stay put just as it is laid and will not shrink, warp or split.

Siding Width Minimum Lap for Beveled Siding

4"	$\frac{3}{4}$ "
5"	$\frac{1}{8}$ "
6"	1"
8"	1 $\frac{1}{4}$ "
10" and wider	1 $\frac{1}{2}$ "

This spacing may be varied so that siding joints coincide with the bottoms of window sills and the tops of drip caps at window and door heads. One method is to begin at the bottom with a wider lap than indicated in the table and decrease the lap slightly as each succeeding board is applied. The result is a graduated spacing.

The joints in adjacent courses of siding should be staggered as widely as possible. Sometimes on high grade work splice joints are made with a miter saw but usually square cut butt joints are used. The corners should be mitered unless there is a vertical piece of trim at the corner against which the ends of the siding are butted.

Plain mitered corners, if they are to look well, must fit closely and stay in place. Open miters are nearly always the result of using siding lumber which has not been properly seasoned or which has been exposed to rain after delivery to the job, so their prevention is easy. An added advantage is to paint the ends of the siding as the siding is laid, to prevent the absorption of moisture. (See Figure 6.) This is recommended for corners and also for points where siding meets window and door frames.

Corner boards, which are commonly used with drop siding, should lie flat against the building paper with the siding butting up to them. The practice of nailing corner boards on over the siding is a poor one, as it allows water to run in behind the corner boards and into the ends of the siding. (See Figures 3 and 4.)

Nailing

Nails cost little compared with the cost of siding or shingles and labor but the use of good nails is important. It is poor economy to buy siding which will last for many generations and then fasten it to the sheathing with nails which will rust badly within a few years. Rusty nails, even though they do not rust in two, stain the paint. Copper nails or zinc coated nails will hold the siding permanently and will not streak light colored paint surfaces. Their slight added cost is a good investment.

Sometimes siding is applied with finishing nails and the nail holes puttied before painting, but regular siding nails holds better and if rust resistant are not conspicuous. For $\frac{1}{2}$ -inch bevel siding 6d nails are used and 8d nails for $\frac{3}{4}$ -inch siding. Ordinary shingles are put on with 3d nails and

extra thick shingles and shakes, depending upon their thickness, with larger nails.

Painting and Maintenance

Long exposure to the elements will cause the deterioration of any building material but some materials will, if properly used, last for many generations. Properly applied and protected wood siding is one of the longest lived materials with which walls can be covered.

When wood siding deteriorates it is from but two causes, decay or rot and weathering, neither of which need occur if simple precautions are taken. Decay is the disintegration of wood caused by the growth of fungi. These fungi grow in wood only when the moisture content is higher than that of properly seasoned lumber. If the home is built upon a foundation which has been carried well above the ground and the construction is such that water runs off instead of into the walls, decay will never give trouble. It is when the flashings or drip caps above windows are omitted and the window sills do not drain properly that water seeps in behind the siding and may cause decay even though the home may be well painted.

Weathering is the separation of wood fibers on the surface of a board caused by the alternate shrinking and swelling of the surface when it is dry or wet. Painting keeps the moisture content of this surface layer from changing rapidly and so prevents weathering. It is for this purpose, and to improve the appearance of a building, that paint is used.

All of the woods commonly used for siding are painted successfully where paint materials of good quality are properly applied.

The priming coat should be put on as soon as possible after the siding has been applied to prevent rapid changes in the moisture content of the surface of the siding. If an unexpected rain should wet the unprimed wood, the first coat of paint should not be applied until all the water has re-evaporated from the siding.

Paint usually fails most rapidly over knots, so if the common grades of siding are used the knots should be given some special treatment before the priming coat is put on. A good treatment is a thin coat of aluminum primer which is allowed to dry firmly before the priming coat is applied. To secure the most durable and satisfactory paint job use pure white lead in oil or the highest grade of mixed paint, selecting a brand sold by a reliable dealer.

There are certain fundamentals of common sense good construction which should be observed for permanence of both building decorations and painting.

There are a number of faults against which simple precautions should be taken in order to realize the maximum benefits from good lumber and good paint.

1. Improper protection of lumber after delivery to the building site and before it is used; allowing siding to lie directly on the ground and to be rained or snowed on will naturally cause it to absorb moisture. Siding should always be protected from the weather and kept dry.
2. Painting too soon after a rain.
3. Closing up a newly plastered house and heating it to dry the plaster. The moisture from the plaster is vaporized and, in cold weather, condenses on the inside of the siding since it cannot escape. More ventilation and slower drying of plaster will correct this condition.

4. Faulty construction, particularly inadequate flashings and drip caps, which allows water to run in behind the siding.
5. Damp basements, siding carried too close to the ground, and poor ventilation under porches or other parts of homes under which basements do not extend.

All of the above sources of excessive moisture can easily be avoided. The observance of suitable precautions should be considered a part of good construction practice, regardless of the siding material used. Neglect means trouble with other materials just as often as it does with wood siding, so good construction practices are always worthwhile.

Build "Dry" and Save Trouble

Hundreds of gallons of water are introduced into a building during plastering operations. Following the completion of a newly plastered home there is a period of so-called "drying out." This continues until the general moisture content of the structure is reduced to a more or less static dry state at which it will remain, subject to the minor fluctuations of the seasons, during the life of the building.

Built of good materials the average house is not particularly damp until the entire structure is soaked under a blanket of wet plaster. Most lumber delivered by a good lumber dealer to a building site is already dry . . . the result of kiln or air drying. Moisture from the wet plaster is absorbed in part by the dry wood. Time should be given for the wood to re-dry and for the plaster to become thoroughly dry before final woodwork in the form of finish, flooring, trim, cabinets and other items usually kiln dried are installed in the building. Poorly fitting miters, open floor joints, cracks and similar unsightly conditions which detract from the beauty of an otherwise perfect home usually result from too much moisture in the building at the time of installation. Wood will not shrink unless it is subject to a marked variation in moisture content. When thoroughly dry wood is applied to wet plaster it absorbs some moisture with consequent swelling and then shrinkage occurs as the wood changes back from a wet to a dry condition.

Most of the unsightly defects resulting from the plaster-introduced moisture can be eliminated entirely if the house can be built "dry" without the trouble-making water which goes with plastering.

Exterior painting difficulties previously mentioned as resulting from water in plaster being driven out through the exterior walls can be entirely eliminated if a "dry" finish is used instead of wet plaster.

Use All-Wood Interiors

All-wood interiors composed of the various types of wood paneled walls in both sawn material and in the plywood-veneer group are an excellent "dry" interior wall finish, and a welcome relief from plaster. The many new forms of wood, specifically developed for interior work, make the job of producing an all-wood interior of any period an easy one. The result is a dry home from the very beginning, with none of the blemishes which mark the average new home at the end of its first heating season.

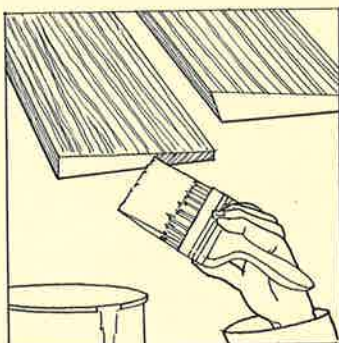


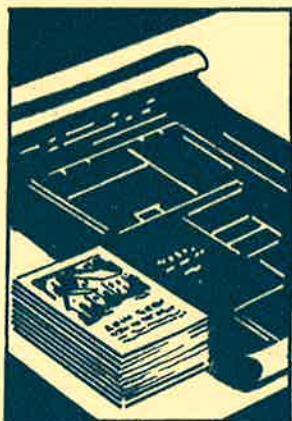
FIGURE 6

Protect your siding on the ends as well as surface . . . paint butt joints when siding is being put in place.

Paint the surface of the siding as soon as it is in position . . . don't allow moisture to get a foothold.

PLANS . .

*.. for Any of the Small Homes Illustrated
In This Booklet May Be Had for \$1.00
(Material List and Specifications Included)*



Full working drawings for any of the Demonstration Homes illustrated in this book, from which any competent carpenter or carpenter-contractor can estimate or erect the structure, are available to any prospective new home builder for the nominal sum of \$1.00 for the first set of prints and \$.75 for each additional set of prints for the same house.

These working drawings are drawn to the commonly used scale of 1/4" to the foot, are standard house plans in every detail. They include more detail than ordinarily given for structures of this size.

Part of the kit which accompanies each set of drawings is an outline specification and a list covering all materials used in the design. In addition, each plan for the 1939 house designs offers details for the new, inexpensive plank type of floor construction.

Plans provide complete drawings for building the 1939 houses with or without basement and also information necessary to build of either standard frame with joisted floors or with the plank floors described on page 15.

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RIGHT NOW

One of the quickest and best means to discover what advantages may be gained by your family through the use of one of these low-cost designs, is to secure a set of plans, take it to your building material dealer and ask for a cost estimate.

May we suggest that in following this procedure you permit your material dealer or contractor to price the house as contained in the plans, and then to this base add such extra features as may be required by your family. Only by basing your estimate on the minimum house at first will you be able to ascertain the extra sums you are adding through alteration and additional features. Beware of the "extras." They always cost proportionately more.

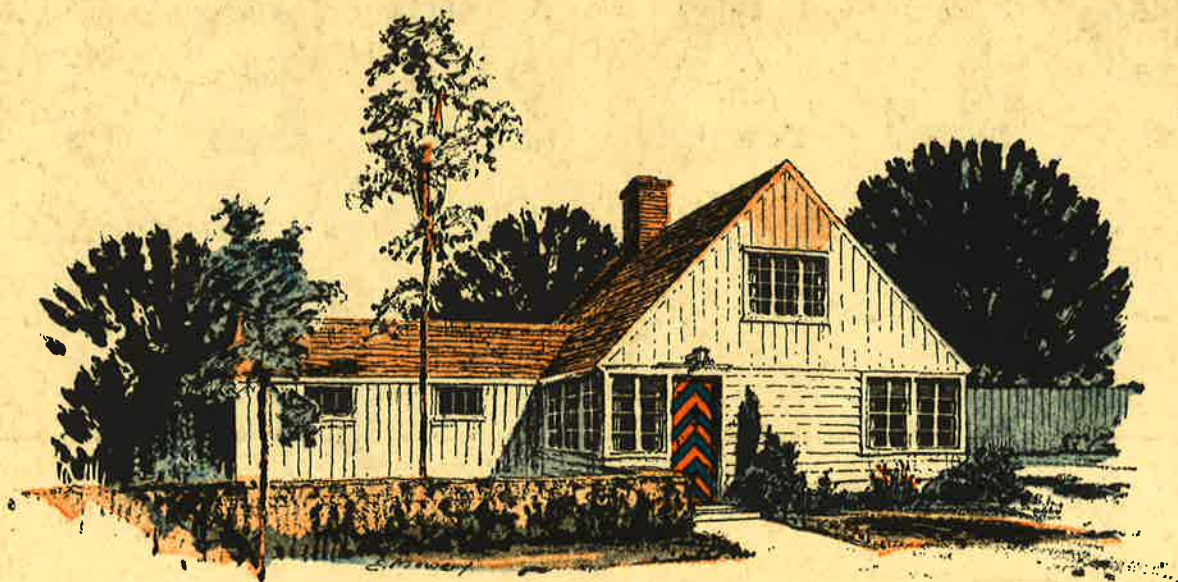


**NATIONAL LUMBER MANUFACTURERS ASSOCIATION
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Presented on Behalf of **NATIONAL SMALL HOMES DEMONSTRATION, INC.**

1337 CONNECTICUT AVE. N. W.

WASHINGTON, D. C.



. . . Among the **"HOMES OF TOMORROW"**
*This Exterior Variation of Basic Demonstration Home
 Number Two is Planned for the Shelter Section
 of the* **1939 NEW YORK WORLD'S FAIR**



USING the basic floor plan of the 1939 one-story house, Evans, Moore and Woodbridge, eminent New York architects, have prepared this striking adaptation of the one-story *National Small Homes Demonstration* design for inclusion in the NEW YORK WORLD'S FAIR, as House Number Six of the "Homes of Tomorrow."

The first floor room layout is the same as for the other exterior versions in this booklet of National Small Homes. The wing at the left houses a garage connecting with the kitchen. The roof pitch has been increased sufficiently to allow area for the finishing of two rooms on the second floor.

Without increasing the 25'x25' foundation size, the architects have so arranged this house that it is possible to secure four complete bedrooms, changing the house to a six-room structure at small additional cost over Designs 2 A to 2 F.

This "Dollar a Day" Home for the Growing Income is to be built at the New York World's Fair 1939 expected to be visited by millions of people.

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NATIONAL SMALL HOMES DEMONSTRATION

1337 Connecticut Avenue

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1938 DESIGNS

[illegible]

Copies Sales Manual Low-Cost Housing (@ 15¢ per copy)

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PRICES

The price of single sets of working drawings, including specifications and material list is \$1.00. If more than one set of drawings is ordered for a given house, all additional sets are billed at 75¢.

MATERIAL LIST

FOR

1939 HOUSE 2 - A

WITH BASEMENT

(FROM DATA FURNISHED BY THE NATIONAL PLAN SERVICE)

NATIONAL SMALL HOMES DEMONSTRATION, INC.

1337 CONNECTICUT AVENUE, N. W.

WASHINGTON, D. C.

HOUSE 2-A - WITH BASEMENT

Note: This list includes materials for standard joist construction as shown on pages 1 through 6 of the drawings. A list of items to be added and deducted for the substitution of plank floor construction is given on pages 8 to 10.

EXCAVATION AND GRADING

<u>Item</u>	<u>Quantity</u>	<u>Price</u>
Excavation	180 Cu. Yds.	\$ _____
Backfill	35 Cu. Yds.	_____
Finish Grading	(Examine Site)	_____
Total Excavation and Grading		\$ _____

MASONRY AND CONCRETE

<u>Item</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total</u>
Concrete Footings and Foundation Wall 10" thickness (1-3-5 mix) 715 Cu.Ft.			
Crushed Stone or Gravel	22-1/2 Cu.Yds.	@ \$ _____	\$ _____
Coarse Sand	13-1/2 Cu.Yds.	@ _____	_____
Portland Cement	29-1/2 Bbls.	@ _____	_____
2-10"x10"x8" Precast Girder Posts Plinth Blocks with Pins		@ _____	_____

Alternate (1)

8" Concrete Block Foundation Wall -
Concrete Footings 8"x16" (1-3-5 mix) 102 Cu.Ft.

Crushed Stone or Gravel	3-1/4 Cu.Yds.	@ _____	_____
Coarse Sand	2 Cu.Yds.	@ _____	_____
Portland Cement	4-1/4 Bbls.	@ _____	_____

Concrete Block

8"x8"x16" Hollow	734 Blocks	@ _____	_____
4"x8"x16" Solid	85 Blocks	@ _____	_____
(For Capping and Piers)			

Alternate (2)

12" Concrete Block Foundation Wall -
Concrete Footings 8"x20" (1-3-5 mix) 126 Cu.Ft.

Crushed Stone or Gravel	4 Cu.Yds.	@ _____	_____
Coarse Sand	2-1/2 Cu.Yds.	@ _____	_____
Portland Cement	5-1/4 Bbls.	@ _____	_____

			<u>Unit Price</u>	<u>Total</u>
Concrete Block				
12"x8"x16" Hollow	734 Blocks	@	_____	\$ _____
4"x12"x16" Solid	75 Blocks	@	_____	_____
(For Capping)				
Waterproofing (as required)				
Drain Tile (as required)				
Cement Floors (1-3-5 mix) 564 Sq. Ft.				
Crushed Stone	5-3/4 Cu.Yds.	@	_____	_____
Coarse Sand	3-3/4 Cu.Yds.	@	_____	_____
Portland Cement	8-3/4 Bbls.	@	_____	_____
Concrete Steps (1-3-5 mix) (3/4 Cu.Yd.)				
Crushed Stone	3/4 Cu.Yd.	@	_____	_____
Coarse Sand	1/2 Cu.Yd.	@	_____	_____
Portland Cement	3/4 Bbl.	@	_____	_____
Chimney				
Common Brick	950	@	_____	_____
Sand	3/4 Cu.Yd.	@	_____	_____
Lime	200 Lbs.	@	_____	_____
Portland Cement	1/2 Bbl.	@	_____	_____
Flue Lining (8"x12")	24 Lin.Ft.	@	_____	_____
Material Subtotal		\$	_____	
Labor Subtotal			_____	
Total Masonry				\$ _____

LUMBER

<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>	<u>Unit Price</u>	<u>Total</u>
Sills & Wall Plates	4 Pcs.2x6-14	56 @	_____	\$ _____
	4 Pcs.2x6-12	48 @	_____	_____
	2 Pcs.2x8-12	32 @	_____	_____
	2 Pcs.2x8-14	38 @	_____	_____
Girder Posts	2 Pcs.6x6-7	42 @	_____	_____
Girders	1 Po .6x8-16	64 @	_____	_____
	1 Po .6x8-9	36 @	_____	_____
Floor Joists	24 Pcs.2x8-14	448 @	_____	_____
	27 Pcs.2x8-12	432 @	_____	_____
Stair Carriages	2 Pcs.2x10-14	47 @	_____	_____
Stoop Joists	8 Pcs.2x6-6	48 @	_____	_____
Ceiling Joists	48 Pcs.2x8-14	858 @	_____	_____

			<u>Feetage</u>		<u>Unit Price</u>	<u>Total</u>
Ceiling Beam	2 Pcs.	2x8-8	21	@	\$	\$
Ledger	2 Pcs.	2x3-8	11	@		
Exterior Studs	111 Pcs.	2x4-8	592	@		
Headers	8 Pos.	2x8-8	85	@		
	1 Pc.	2x8-12	16	@		
Gable Studs	10 Pcs.	2x4-12	80	@		
Interior Studs	78 Pcs.	2x4-8	416	@		
	8 Pos.	2x6-8	64	@		
Headers	5 Pos.	2x8-12	80	@		
Exterior Plates	12 Pcs.	2x4-14	112	@		
	12 Pos.	2x4-12	96	@		
Interior Plates	23 Pcs.	2x4-12	184	@		
	3 Pcs.	2x6-8	24	@		
Rafters	28 Pcs.	2x8-14	523	@		
	1 Pc.	2x8-8	11	@		
Ridge Board	1 Pc.	1x10-12	10	@		
	1 Pc.	1x10-14	12	@		
Porch Rafters	3 Pcs.	2x4-8	16	@		
Balking		1x6	60	@		
Bridging		1x4	80	@		
Furring (bath)	16 Pcs.	1x2-8	21	@		
Roof Sheathing	1"x4" S2S Spaced		730	@		
	4-1/2" o.c.					
Porch Roof Sheathing	1"x6" D&M		20	@		
Sheathing for Exterior Walls	1x8 Box		1175	@		
	laid diagonally					
Subflooring	1"x6" D&M laid		760	@		
	diagonally					
Finish Flooring	3/4x3-1/4		700	@		
Porch Flooring	3/4x3-1/4		50	@		
Siding	1/2x8 Bevel Siding		1250	@		
	1" lap					
Roofing	8-1/4 Squares 16"					
	5/2 #1 Wood Shingles					
	Laid 4-1/2" Exp.			@		
Interior Finish Lumber						
Shelving	3 Pcs.	1x12-12	36	@		
Cellar Stair Treads	3 Pcs.	1-1/4x10-12	38	@		
Cellar Stair Rails	4 Pcs.	2x4-12	32	@		

			<u>Feetage</u>	<u>Unit</u>	<u>Price</u>	<u>Total</u>
Wall Paneling						
Living Room						
D&M V'd Boards	10 Pcs. 1x8-12'	80	@	\$		\$
	8 Pcs. 1x8-10'	53	@			
1"x8", 10" and 12"x5'	D&M V'd Boards	230	@			
Large Bedroom						
1"x8", 10" and 12"x12'	D&M V'd Boards	335	@			
" " " " " " " " " "	" " " " " " " " " "	36	@			
Small Bedroom						
1"x8", 10" and 12"x8'	D&M V'd Boards	280	@			
Hall						
1"x8", 10" and 12"x8'	D&M V'd Boards	80	@			
Kitchen, 175 Sq. Ft. Net Area for Kitchen Wall Finish						
Bath, Plywood	4 Pcs. 4x7	112 Sq. Ft.	@			
	2 Pcs. 4x5	40 Sq. Ft.	@			
	1 Pc. 2x8	16 Sq. Ft.	@			
Ceilings						
Living Room, Net Area for Ceiling Material 175 Sq. Ft.						
Kitchen, Net Area for Ceiling Material 77 Sq. Ft.						
Large Bedroom, Net Area for Ceiling Material 124 Sq. Ft.						
Small Bedroom, Net Area for Ceiling Material 82 Sq. Ft.						
Bath, Net Area for Ceiling Material 35 Sq. Ft.						
Hall, Net Area for Ceiling Material 21 Sq. Ft.						
Closet and Stairway Walls 190 Sq. Ft.						
Closet Ceilings 45 Sq. Ft.						
Exterior Finish Lumber						
Fascia	2 Pcs. 1x8-10'	13	@			
	2 Pcs. 1x8-16'	21	@			
Gable Fascia	4 Pcs. 1x6-16'	32	@			
Porch Frieze						
(Crimp Cut-See Plan)	1 Pc. 1x6-12'	6	@			
Porch Posts	4 Pcs. 4x4-9'	48	@			
Trellis	72 Lin. Ft. 1x2	12	@			
Miscellaneous O.S. Finish	1x4 to 1x10	10	@			
Insulation (Optional)						
Attic Floor (Between Joists) 625 Sq. Ft. Net						
Building Paper, 4 Rolls 50# 500' Rolls						
Total Lumber						

MILLWORK

<u>Item</u>	<u>Size</u>	<u>Quantity</u>	<u>Unit</u> <u>Price</u>	<u>Total</u>
Exterior Trim				
Bed Molding		100 Lin. Ft. @		\$
Molded Wood Gutter with Fittings		52 Lin. Ft. @		
Cove Molding		30 Lin. Ft. @		
Quarter Round for Porch		12 Lin. Ft. @		
Exterior Millwork				
Blinds, for 12 Lt. 9x11 Windows		2 Pr. @		
Window and Sash Frames				
Cellar Sash Frames	10x16x1-1/8 - 3 Lt.	4 @		
Window Frames P&P D.C.	8x10x1-3/8 - 8 Lt.	1 @		
" "	9x11x1-3/8 -12 Lt.	5 @		
" "	9x11x1-3/8 -16 Lt.	2 @		
Sash Frames	8x10x1-3/8 - 6 Lt.	2 @		
Exterior Door Frames				
Front Door Frame D.C.	3/0x7/0x1-3/4	1 @		
Rear Door Frame D.C.	2/8x7/0x1-3/4	1 @		
Windows and Sash				
Windows, Glz.	9x11x1-3/8 -16 Lt.	2 @		
" "	9x11x1-3/8 -12 Lt.	5 @		
" "	8x10x1-3/8 - 8 Lt.	1 @		
Sash, "	8x10x1-3/8 - 6 Lt.	2 @		
Cellar Sash, Glz.	10x16x1-1/8 - 3 Lt.	4 @		
Doors				
Front Door, 6 Pan.	3/0x7/0x1-3/4	1 @		
Rear Door, Glz.				
12 Lts. D.S.	2/8x7/0x1-3/4	1 @		
Interior Doors, Pan.	2/6x7/0x1-3/8	3 @		
" "	2/4x7/0x1-3/8	2 @		
" "	2/0x7/0x1-3/8	3 @		
Access Panel, Jamb and Trim	2/0x6/0	1 @		
Jambs				
Interior Door Jambs for	7/8x5-1/8"	5 @		
2/6x7/0 and Smaller Doors	7/8x3-1/8"	4 @		
Window and Sash Trim for	16 Lt. 9x11 Windows	2 Sets @		
" "	12 Lt. 9x11 Windows	5 Sets @		
" "	8 Lt. 8x10 Windows	1 Set @		
Door Trim				
Trim for	3/0x7/0 Door	1 Set @		
" "	2/8x7/0 Door	1 Set @		
" "	2/4x7/0 Door	7 Sets @		
" "	2/4x7/0 Cellar	1 Set @		
Trim for	2/4x7/0 Door	2 Sets @		
" "	2/0x7/0 Door	3 Sets @		
" "	2/0x7/0 Clo. Door	3 Sets @		
" "	2/6x7/0 C.O.	2 Sets @		

<u>Item</u>	<u>Size</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total</u>
Interior Lineal Trim				
Base		170 Lin. Ft. @	\$	\$
Base Shoe		204 Lin. Ft. @		
Base for Closet		34 Lin. Ft. @		
Picture Mold		160 Lin. Ft. @		
Chair Rail		40 Lin. Ft. @		
Wainscot Cap		40 Lin. Ft. @		
Hook Strips		34 Lin. Ft. @		
Shelf Cleats		24 Lin. Ft. @		
Thresholds		6 Lin. Ft. @		
Landing Tread	3/0	1 Pc. @		
Garment Hanger Rods		7 Lin. Ft. @		
Cabinets				
Kitchen Worktable, Complete with Hardware,				
Top Cut for Sink	7/6	1 @		
Medicine Cabinet		1 @		
Total Millwork:				\$

HARDWARE

Common Nails	20d	50 Lbs. @		
Common Nails	16d	50 Lbs. @		
Common Nails	10d	20 Lbs. @		
Common Nails	8d	100 Lbs. @		
Common Nails	6d	10 Lbs. @		
Casing Nails	10d	10 Lbs. @		
Casing Nails	8d	120 Lbs. @		
Casing Nails	6d	5 Lbs. @		
Finish Nails	10d	2 Lbs. @		
Finish Nails	8d	10 Lbs. @		
Finish Nails	6d	5 Lbs. @		
Finish Nails	4d	1 Lb. @		
Finish Brads	7/8"	1 Lb. @		
Shingle Nails, Hot Dipped				
Zinc Coated	3d	40 Lbs. @		
Box Nails	8d	30 Lbs. @		
Wall Plate Anchors	1/2x18	18 @		
Sash Weights		200 Lbs. @		
Sash Cord		2 Hanks @		
Cellar Sash Sets		4 @		
Attic or Garage Sash Sets		2 @		
Door Butts	4"x4"	3 Pr. @		
Door Butts	3-1/2"x3-1/2"	8 Pr. @		
Medicine Cabinet Butts, Narrow	2-1/2"	1 Pr. @		

<u>Item</u>	<u>Size</u>	<u>Quantity</u>	<u>Unit</u> <u>Price</u>	<u>Total</u>
Front Door Lock Set		1 @	\$ _____	\$ _____
Rear Door Lock Set		1 @	_____	_____
Inside Door Lock Sets		8 @	_____	_____
Blind Hinges and Fasteners		2 Sets @	_____	_____
Sash Locks		8 @	_____	_____
Sash Lifts		16 @	_____	_____
Cupboard Turns, Med. Case		1 @	_____	_____
Base Knobs		10 @	_____	_____
Clothes Hooks		3 Doz. @	_____	_____
Closet Pole Ferrules		2 Sets @	_____	_____
Total Hardware				\$ _____

SHEET METAL

Metal Roofing With Nails		24 Ft. @	_____	_____
Tin Shingles	7x10	30 Pcs. @	_____	_____
Valley Tin	14"	10 Ft. @	_____	_____
Conductor Pipe	3"	20 Ft. @	_____	_____
Strainers		2 @	_____	_____
Conductor Pipe Hooks		6 @	_____	_____
Total Sheet Metal				\$ _____

PAINTING

Outside Body Paint		4 Gals. @	_____	_____
Porch Floor Paint		1 Pt. @	_____	_____
Porch Ceiling Paint		1/2 Pt. @	_____	_____
Outside Trim Paint		1-1/2 Gals. @	_____	_____
Blind or Shutter Paint		1/2 Pt. @	_____	_____
Sheet Metal Paint (Mineral)		1 Pt. @	_____	_____
Floor Varnish		3 Gals. @	_____	_____
Interior Varnish		3 Gals. @	_____	_____
Interior Varnish or Other Finish		10 Gals. @	_____	_____
(Surface of Walls and Ceilings, 2500 Sq.Ft.)				
Spar Varnish		1 @	_____	_____
Shellac		1/2 Gal. @	_____	_____
Liquid Wood Filler		1-1/2 Gals. @	_____	_____
Boiled Linseed Oil		1/2 Gal. @	_____	_____
Turpentine		1/2 Gal. @	_____	_____
Putty		15 Lbs. @	_____	_____
Total Painting				\$ _____

ALTERNATE FOR PLANK FLOOR AND CEILING

When Plank Construction is Used DEDUCT All Items in the Preceding Material List under the Following Headings:-

MASONRY AND CONCRETE

Total Price

8" Concrete Block Foundation Wall
Footings
12" Concrete Block Foundation Wall
Footings

LUMBER

- Sills and Wall Plates
- Box Sills
- Girder Posts
- Girders
- Floor Joists
- Stoop Joists
- Celling Joists
- Ceiling Beam and Ledger
- Exterior Studs
- Headers
- Interior Studs
- Exterior Plates
- Bridging
- Sheathing for Exterior Walls
- Subflooring
- Porch Flooring
- Siding
- Interior Paneling
- Living Room
- Small Bedroom
- Kitchen
- Ceilings
- Living Room
- Bedrooms
- Hall
- Closets
- Kitchen

Total Deductions \$_____

(Note: All of the above items are either omitted or changed in quantity by the use of the plank floor. Those changed in quantity are listed on the following pages and must be substituted in place of the above items to obtain a complete list of materials for the house with plank floor and ceiling construction.)

ALTERNATE FOR PLANK FLOOR AND CEILING

ADD to Material List for Plan 2-A After Deductions are Made:

MASONRY AND CONCRETE

<u>Item</u>	<u>Quantity</u>	<u>Unit</u> <u>Price</u>	<u>Total</u>
Concrete Footings and Foundation Walls			
10" thickness (1-3-5 mix) 745 Cu. Ft.			
Crushed Stone or Gravel	23-1/2 Cu. Yds.	@ \$	\$
Coarse Sand	14 Cu. Yds.	@	
Portland Cement	30-3/4 Bbls.	@	
Alternate (1)			
8" Concrete Block Foundation Wall			
Concrete Footings 8"x16" (1-3-5 mix) 102 Cu. Ft.			
Crushed Stone or Gravel	3-1/4 Cu. Yds.	@	
Coarse Sand	2 Cu. Yds.	@	
Portland Cement	4-1/4 Bbls.	@	
Concrete Block			
8"x8"x16" Hollow	803 Blocks	@	
4"x8"x16" Solid (For Capping)	81 Blocks	@	
Alternate (2)			
12" Concrete Block Foundation Wall			
Concrete Footings 8"x20" (1-3-5 mix) 126 Cu. Ft.			
Crushed Stone or Gravel	4 Cu. Yds.	@	
Coarse Sand	2-1/2 Cu. Yds.	@	
Portland Cement	5-1/4 Bbls.	@	
Concrete Block			
12"x8"x16" Hollow	803 Blocks	@	
8"x8"x16" Hollow	6 Blocks	@	
4"x12"x16" Solid	75 Blocks	@	
Total Masonry and Concrete			\$

LUMBER

<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>	<u>Unit</u> <u>Price</u>	<u>Total</u>
Sills and Wall Plates	8 Pcs. 2x4-14	75	@ \$	\$
	8 Pcs. 2x4-12	64	@	
Girder Posts	3 Pcs. 6x8-7	84	@	
Beams	12 Pcs. 2x10-14	280	@	
Blocking	2 Pcs. 3x4-8	16	@	
Headers and Trimmers	3 Pcs. 2x10-14	70	@	
Plank Floor	60 Pcs. 2"x6" T&G -14	840	@	
	20 Pcs. 2"x6" T&G - 8	160	@	
	40 Pcs. 2"x6" T&G -12	468	@	
Top Ledger at Stair Stringer	1 Pc. 2x4-8	5	@	

<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>		<u>Unit Price</u>	<u>Total</u>
Ceiling Beams	12 Pcs. 2x10-14	380	@	\$ _____	\$ _____
Headers	4 Pcs. 2x10-14	93	@	_____	_____
	4 Pcs. 2x10-12	80	@	_____	_____
Plank Ceiling	60 Pcs. 2"x6" T&G-14	840	@	_____	_____
	60 Pcs. 2"x6" T&G-12	720	@	_____	_____
Exterior Studs	56 Pcs. 2x4-14	523	@	_____	_____
Interior Studs	76 Pcs. 2x4-8	405	@	_____	_____
	8 Pcs. 2x6-8	64	@	_____	_____
Posts	6 Pcs. 2x4-9	36	@	_____	_____
Interior Cornice Blocking	200 Lin. Ft. 2x3	100	@	_____	_____
Exterior Wall Plates	10 Pcs. 2x4-14	93	@	_____	_____
	10 Pcs. 2x4-12	80	@	_____	_____
Sheathing for Exterior Walls	1x8 Box laid diagonally	1125	@	_____	_____
Siding	1/2x8 Bevel Siding 1" Lap	1200	@	_____	_____
Interior Paneling and Ceiling Material					
Living Room D&M V'd Boards	10 Pcs. 1x8-12	80	@	_____	_____
" " "	8 Pcs. 1x8-10	53	@	_____	_____
" " "	1"x8", 10" and 12"x4'6"	207	@	_____	_____
S4S	2 Pcs. 1x10-14	23	@	_____	_____
"	2 Pcs. 1x10-12	20	@	_____	_____
Small Bedroom D&M V'd Boards (Vertical)	1"x8", 10" and 12"x7'0"	115	@	_____	_____
D&M V'd Boards (Vertical)	1"x8", 10" and 12"x8'0"	145	@	_____	_____
Cornice Board on Outside Wall					
	1 Pc. 1"x10" S4S 12'0"	10	@	_____	_____
	1 Pc. 1"x10" S4S 10'0"	8	@	_____	_____
Kitchen, Cornice Board,	1 Pc. 1"x10" S4S 10'0"	8	@	_____	_____
	2 Pcs. 1"x10" S4S 8'0"	13	@	_____	_____
Furring from Beam to Wall					
	1 Pc. 1x12 S4S 10'0"	10	@	_____	_____
Other Kitchen Wall Finish, 140 Sq. Ft. Net Area					
Total Lumber				\$ _____	

MATERIAL LIST

FOR

1939 HOUSE 2-F
WITH BASEMENT

(FROM DATA FURNISHED BY THE NATIONAL PLAN SERVICE)

NATIONAL SMALL HOMES DEMONSTRATION, INC.

1337 CONNECTICUT AVENUE, N. W.

WASHINGTON, D. C.

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HOUSE 2-F - WITH BASEMENT

Note: This list includes materials for standard joist construction as shown on pages 1 through 6 of the drawings. A list of items to be added and deducted for the substitution of plank floor construction is given on pages 9 to 11.

EXCAVATION AND GRADING

<u>Item</u>	<u>Quantity</u>		<u>Price</u>
Excavation	180 Cu. Yds.	@	\$ _____
Backfill	35 Cu. Yds.	@	_____
Trench Work	6 Cu. Yds.	@	_____
Finish Grading	(Examine Site)		
Total Excavation and Grading			\$ _____

MASONRY AND CONCRETE

<u>Item</u>	<u>Quantity</u>		<u>Unit Price</u>	<u>Total</u>
Concrete Footings and Foundation Wall				
10" thickness (1-3-5 mix)	863 Cu. Ft.			
Crushed Stone or Gravel	27-1/4 Cu. Yds.	@	\$ _____	\$ _____
Coarse Sand	16-1/2 Cu. Yds.	@	_____	_____
Portland Cement	35-3/4 Bbls.	@	_____	_____
2-10"x10"x8" Precast Girder				
Posts Plinth Blocks with Pins		@	_____	_____
Alternate (1)				
8" Concrete Block Foundation Wall				
Concrete Footings 8"x16" (1-3-5 mix)	146 Cu. Ft.			
Crushed Stone or Gravel	4-1/2 Cu. Yds.	@	_____	_____
Coarse Sand	2-3/4 Cu. Yds.	@	_____	_____
Portland Cement	6 Bbls.	@	_____	_____
Concrete Block				
8"x8"x16" Hollow	845 Blocks	@	_____	_____
4"x8"x16" Solid	122 Blocks	@	_____	_____
(For Capping and Piers)				
Alternate (2)				
12" Concrete Block Foundation Wall				
Concrete Footings 8"x20" (1-3-5 mix)	170 Cu. Ft.			
Crushed Stone or Gravel	5-1/4 Cu. Yds.	@	_____	_____
Coarse Sand	3-1/4 Cu. Yds.	@	_____	_____
Portland Cement	7 Bbls.	@	_____	_____
Concrete Block				
12"x8"x16" Hollow	734 Blocks	@	_____	_____
4"x12"x16" Solid	75 Blocks	@	_____	_____
(For Capping)				
8"x8"x16"	111 Blocks	@	_____	_____
4"x8"x16"	37 Blocks	@	_____	_____

				<u>Unit</u> <u>Price</u>	<u>Total</u>
Waterproofing (as required)					
Drain Tile (as required)					
Cement Floors (1-3-5 mix) 734 Sq. Ft.					
Crushed Stone	7-1/2 Cu. Yds.	@	\$		\$
Coarse Sand	5 Cu. Yds.	@			
Portland Cement	11-1/2 Bbls.	@			
Concrete Steps (1-3-5 mix) (3/4 Cu. Yd.)					
Crushed Stone	3/4 Cu. Yd.	@			
Coarse Sand	1/2 Cu. Yd.	@			
Portland Cement	3/4 Bbl.	@			
Terrace Paving 176 Sq. Ft. Area					
Chimney					
Common Brick	950	@			
Sand	3/4 Cu. Yd.	@			
Lime	200 Lbs.	@			
Portland Cement	1/2 Bbl.	@			
Flue Lining (8"x12")	24 Lin. Ft.	@			
Material Subtotal \$					
Labor Subtotal					

Total Masonry \$

<u>LUMBER</u>					
<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>		<u>Unit</u> <u>Price</u>	<u>Total</u>
Sills and Wall Plates	4 Pcs. 2x6-14	56	@	\$	\$
	4 Pcs. 2x6-12	48	@		
Box Sills	2 Pcs. 2x8-12	32	@		
	2 Pcs. 2x8-14	38	@		
Garage Wall Plates	13 Pcs. 2x4-10	87	@		
Girder Posts	2 Pcs. 6x6-7	42	@		
Girders	1 Pc. 6x8-16	64	@		
	1 Pc. 6x8-9	36	@		
Floor Joists	24 Pcs. 2x8-14	448	@		
	27 Pcs. 2x8-12	432	@		
Stair Carriages	2 Pcs. 2x10-14	47	@		
Stoop Joists	8 Pcs. 2x6-6	48	@		
Ceiling Joists	46 Pcs. 2x8-14	858	@		
Ceiling Beam	2 Pcs. 2x8-8	21	@		
Ledger	2 Pcs. 2x3-8	11	@		

2268

2268
3129
5397

			<u>Feetage</u>		<u>Unit Price</u>	<u>Total</u>
Exterior Studs	111 Pos. 2x4-8	592	@	\$		\$
Headers	8 Pos. 2x8-8	85	@			
	1 Pc. 2x8-12	16	@			
Gable Studs	10 Pos. 2x4-12	80	@			
Garage Studs	27 Pos. 2x4-8	144	@			
	8 Pos. 2x4-10	54	@			
	9 Pos. 2x4-12	72	@			
Interior Studs	78 Pos. 2x4-8	416	@			
Headers	8 Pos. 2x8-8	64	@			
	5 Pos. 2x8-12	80	@			
Exterior Plates	12 Pos. 2x4-14	112	@			
	12 Pos. 2x4-12	96	@			
Interior Plates	23 Pos. 2x4-12	184	@			
	3 Pos. 2x8-8	24	@			
Garage Door Lintels	2 Pos. 2x10-10	33	@			
Porch Lintels	4 Pos. 2x10-14	93	@			
Rafters	28 Pos. 2x8-14	523	@			
	1 Pc. 2x8-8	11	@			
Ridge Board	1 Pc. 1x10-12	10	@			
	1 Pc. 1x10-14	12	@			
Porch Rafters	20 Pos. 2x4-8	107	@			
Garage Rafters	9 Pos. 2x6-8	72	@			
	9 Pos. 2x6-14	126	@			
Ridge Boards	2 Pos. 1x8-12	16	@			
Porch Ceiling Joists	10 Pos. 2x4-16	107	@			
Porch Strapping	4 Pos. 1x4-12	16	@			
Garage Collar Beams	7 Pos. 1x6-14	49	@			
Garage Diagonal Bracing	4 Pos. 1x6-12	24	@			
Backing	1x6	60	@			
Bridging	1x4	80	@			
Furring (bath)	16 Pos. 1x2-8	21	@			
Roof Sheathing 1"x4" S2S Spaced 4-1/2" o.c.		1190	@			
Porch Roof Ceiling	1"x6" D&M -12'	210	@			
Sheathing for Exterior Walls	1x8 Box laid diagonally	1175	@			
Subflooring	1"x6" D&M laid diagonally	760	@			
Finish Flooring	3/4x3-1/4	700	@			
Porch Flooring	3/4x3-1/4	60	@			

			<u>Feetage</u>		<u>Unit</u> <u>Price</u>	<u>Total</u>
Siding 1"x6" Drop or Shiplap			1170	@	\$	
Garage Siding 1"x6" Drop or Shiplap			570	@		
Roofing 13 Squares 16" 5/2 #1 Wood Shingles						
Laid 4-1/2" Exp.				@		
Interior Finish Lumber						
Shelving	3 Pcs. 1x12-12		36	@		
Cellar Stair Treads	3 Pcs. 1-1/4x10-12		38	@		
Cellar Stair Rails	4 Pcs. 2x4-12		32	@		
Wall Paneling						
Living Room D&M V'd Boards	10 Pcs. 1x8-12'		80	@		
" " " " " " 8 Pcs. 1x8-10'			53	@		
1"x8", 10" and 12"x5' D&M V'd Boards			230	@		
Large Bedroom						
1"x8", 10" and 12"x12' D&M V'd Boards			335	@		
" " " " " " " " " " " "			36	@		
Small Bedroom						
1"x8", 10" and 12"x8' D&M V'd Boards			280	@		
Hall						
1"x8", 10" and 12"x8' D&M V'd Boards			80	@		
Kitchen, 175 Sq. Ft. Net Area for						
Kitchen Wall Finish						
Bath, Plywood	4 Pcs. 4x7	112 Sq. Ft. @				
	2 Pcs. 4x5	40 Sq. Ft. @				
	1 Pc. 2x8	16 Sq. Ft. @				
Ceilings						
Living Room, Net Area for Ceiling Material	175 Sq. Ft.					
Kitchen, Net Area for Ceiling Material	77 Sq. Ft.					
Large Bedroom, Net Area for Ceiling Material	124 Sq. Ft.					
Small Bedroom, Net Area for Ceiling Material	82 Sq. Ft.					
Bath, Net Area for Ceiling Material	35 Sq. Ft.					
Hall, Net Area for Ceiling Material	21 Sq. Ft.					
Closet and Stairway Walls	190 Sq. Ft.					
Closet Ceilings	45 Sq. Ft.					
Exterior Finish Lumber						
Corner Boards	4 Pcs. 5/4x5-10	21 @				
	4 Pcs. 5/4x4-10	17 @				
	2 Pcs. 5/4x5-12	13 @				
	1 Pc. 5/4x4-12	5 @				
Fascia	7 Pcs. 5/4x5-16	58 @				
	5 Pcs. 5/4x5-10	27 @				
Porch Frieze	4 Pcs. 1x10-12	40 @				
	2 Pcs. 1x10-14	23 @				
Garage Door Jambs	2 Pcs. 2x6-7	14 @				
	1 Pc. 2x6-9	9 @				

Exterior Finish Lumber (Cont.)			Feetage	Unit Price	Total
Garage Door Casing	1 Pc. 1x10-10	8 @	\$	\$	
	1 Pc. 1x10-14	12 @			
Porch and Garage Fascia	2 Pos. 1x5-10	8 @			
	1 Pc. 1x5-12	5 @			
Garage Door Material	5/4x8 32 Lin. Ft.	20 @			
Garage Door Facing	10" Paneling Boards-14'	80 @			
Fence Posts	3 Pos. 4x4-5	20 @			
	2 Pos. 2x4-4	5 @			
Rails	4 Pos. 2x4-10	26 @			
Pickets	36 Pos. 1x3-3	27 @			
Insulation (Optional)					
Attic Floor (Between Joists) 625 Sq. Ft. Net					
Building Paper, 4 Rolls 50# 500' Rolls			@		
Total Lumber				\$	

MILLWORK

Item	Size	Quantity	Unit Price	Total
Exterior Trim				
Bed Molding		200 Lin. Ft. @	\$	\$
Molded Wood Gutter with Fittings		96 Lin. Ft. @		
Garage Door Trim (5" molded)		2 Pos. 7' @		
		1 Pc. 9' @		
Quarter Round for Porch		56 Lin. Ft. @		
Porch Columns	2-1/2x5x8	3 Half Columns @		
	5x5x8	1 Column @		
Lamp Post and Gate (See Elevation)				
Cellar and Sash Frames	10x16x1-1/8- 3 Lt.	4 @		
Blinds for 8x12-16 Lt. Windows		5 Pr. @		
" 8x12-12 Lt. Windows		1 Pr. @		
" 8x8-12 Lt. Windows		1 Pr. @		
Window Frames P&P D.C.	8x10x1-3/8- 8 Lt.	1 @		
	" " 8x12x1-3/8-12 Lt.	2 @		
	" " 8x12x1-3/8-16 Lt.	5 @		
Sash Frame	" " 8x10x1-3/8- 6 Lt.	1 @		
Garage Window Fr. P&P D.C.	8x8x1-3/8-12 Lt.	1 @		
Attic Louvre (See Elevation)		1 @		
Exterior Door Frames				
Front Door Frame D.C.	3/0x7/0x1-3/4	1 @		
Rear Door Frame D.C.	2/8x7/0x1-3/4	1 @		
Garage Door Frame	2/6x7/0x1-3/4	1 @		
Windows and Sash				
Windows, Glz.	8x12x1-3/8-16 Lt.	5 @		
" "	8x12x1-3/8-12 Lt.	2 @		
" "	8x10x1-3/8- 8 Lt.	1 @		

Windows and Sash (Cont.)			Quantity	Unit Price	Total
Windows, Glz.	8x8x1-3/8-12 Lt.		1 @	\$	\$
Sash,	8x10x1-3/8-6 Lt.		1 @		
Cellar Sash, Glz.	10x16x1-1/8-3 Lt.		4 @		
Doors					
Front Door, 6 Pan.	3/0x7/0x1-3/4		1 @		
Rear Door, Glz.					
12 Lts. D.S.	2/8x7/0x1-3/4		1 @		
Garage Door Pan.	2/8x7/0x1-3/4		1 @		
Interior Doors, Pan.	2/6x7/0x1-3/8		3 @		
"	2/4x7/0x1-3/8		2 @		
"	2/0x7/0x1-3/8		3 @		
Access Panel, Jamb and Trim	2/0x6/0		1 @		
Interior Door Jambs for	7/8x5-1/8		5 @		
2/6x7/0 and Smaller Doors	7/8x3-1/8		4 @		
Window and Sash Trim for	16 Lt. 8x12 Windows	5 Sets @			
"	12 Lt. 8x12 Windows	2 Sets @			
"	8 Lt. 8x10 Windows	1 Set @			
Door Trim, Trim for	3/0x7/0 Door	1 Set @			
"	2/8x7/0 Door	1 Set @			
"	2/4x7/0 Door	7 Sets @			
"	2/4x7/0 Cellar	1 Set @			
"	2/4x7/0 Door	2 Sets @			
"	2/0x7/0 Door	3 Sets @			
"	2/0x7/0 Clo. Door	3 Sets @			
"	2/6x7/0 C.O.	2 Sets @			
Interior Lineal Trim					
Base		170 Lin. Ft. @			
Base Shoe		204 Lin. Ft. @			
Base for Closet		34 Lin. Ft. @			
Picture Mold		160 Lin. Ft. @			
Chair Rail		40 Lin. Ft. @			
Wainscot Cap		40 Lin. Ft. @			
Hook Strips		34 Lin. Ft. @			
Shelf Cleats		24 Lin. Ft. @			
Thresholds		6 Lin. Ft. @			
Landing Tread	3/0	1 Pc. @			
Garment Hanger Rods		7 Lin. Ft. @			
Cabinets					
Kitchen Worktable, Complete with Hardware,					
Top Cut for Sink	7/6	1 @			
Medicine Cabinet		1 @			
Total Millwork				\$	\$

HARDWARE

Common Nails	20d	50 Lbs. @	\$	\$
Common Nails	16d	65 Lbs. @		
Common Nails	10d	30 Lbs. @		
Common Nails	8d	120 Lbs. @		
Common Nails	6d	10 Lbs. @		

		<u>Quantity</u>	<u>Unit Price</u>	<u>Total</u>
Casing Nails	10d	10 Lbs. @	\$	\$
Casing Nails	8d	120 Lbs. @		
Casing Nails	6d	5 Lbs. @		
Finish Nails	10d	2 Lbs. @		
Finish Nails	8d	10 Lbs. @		
Finish Nails	6d	5 Lbs. @		
Finish Nails	4d	1 Lb. @		
Finish Brads	7/8"	1 Lb. @		
Shingle Nails, Hot				
Dipped Zinc Coated	3d	65 Lbs. @		
Box Nails	8d	50 Lbs. @		
Wall Plate Anchors	1/2x18	30 @		
Sash Weights		225 Lbs. @		
Sash Cord		2 Hanks @		
Cellar Sash Sets		4 @		
Attic or Garage Sash Sets		1 @		
Door Butts	4"x4"	4-1/2 Pr. @		
Door Butts	3-1/2"x3-1/2"	8 Pr. @		
Medicine Cabinet Butts,				
Narrow	2-1/2 "	1 Pr. @		
Front Door Lock Set		1 @		
Rear Door Lock Set		1 @		
Lock Set, Door Porch to Garage		1 @		
Inside Door Lock Sets		8 @		
Blind Hinges and Fasteners		7 Sets @		
Garage Door Hardware		1 Set @		
Sash Locks		9 @		
Sash Lifts		16 @		
Cupboard Turns, Med. Case		1 @		
Base Knobs		10 @		
Clothes Hooks		3 Doz. @		
Closet Pole Ferrules		2 Sets @		
Total Hardware				\$

SHEET METAL

Tin Shingles	7x10	30 Pcs. @	\$	\$
Valley Tin	14"	36 Ft. @		
Conductor Pipe	3"	50 Ft. @		
Strainers		5 @		
Conductor Pipe Hooks		15 @		
Total Sheet Metal				\$

PAINING

<u>Item</u>	<u>Quantity</u>	<u>Unit</u> <u>Price</u>	<u>Total</u>
Outside Body Paint	6 Gals. @	\$ _____	\$ _____
Porch Floor Paint	1 Pt. @	_____	_____
Porch Ceiling Paint	1 Qt. @	_____	_____
Outside Trim Paint	1-1/2 Gals. @	_____	_____
Blind or Shutter Paint	1 Qt. @	_____	_____
Sheet Metal Paint (Mineral)	1 Pt. @	_____	_____
Floor Varnish	3 Gals. @	_____	_____
Interior Varnish	3 Gals. @	_____	_____
Interior Varnish or Other Finish	10 Gals. @	_____	_____
(Surface of Walls and Ceilings, 2500 Sq. Ft.)			
Spar Varnish	1 @	_____	_____
Shellac	1/2 Gal. @	_____	_____
Liquid Wood Filler	1-1/2 Gals. @	_____	_____
Boiled Linseed Oil	1/2 Gal. @	_____	_____
Turpentine	1/2 Gal. @	_____	_____
Putty	15 Lbs. @	_____	_____

Total Paining \$ _____

ALTERNATE FOR PLANK FLOOR AND CEILING

When Plank Construction is Used DEDUCT All Items in the Preceding Material List under the Following Headings:-

MASONRY AND CONCRETE

Total Price

8" Concrete Block Foundation Wall
Footings
12" Concrete Block Foundation Wall
Footings

\$ _____

LUMBER

- Sills and Wall Plates
- Box Sills
- Girder Posts
- Girders
- Floor Joists
- Stoop Joists
- Ceiling Joists
- Ceiling Beam and Ledger
- Exterior Studs
- Headers
- Interior Studs
- Exterior Plates
- Bridging
- Sheathing for Exterior Walls
- Siding
- Subflooring
- Porch Flooring
- Interior Paneling
- Living Room
- Small Bedroom
- Kitchen
- Ceilings
- Living Room
- Bedrooms
- Hall
- Closets
- Kitchen

[illegible]

Total Deductions \$

(Note: All of the above items are either omitted or changed in quantity by the use of the plank floor. Those changed in quantity are listed on the following pages and must be substituted in place of the above items to obtain a complete list of materials for the house with plank floor and ceiling construction.)

ALTERNATE FOR PLANK FLOOR AND CEILING

ADD to Material List for Plan 2-F After Deductions are Made:

MASONRY AND CONCRETE

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Price</u>	<u>Total</u>
Concrete Footings and Foundation Walls				
10" thickness (1-3-5 mix) 893 Cu. Ft.				
Crushed Stone or Gravel	28-1/4 Cu. Yds.	@	\$ _____	\$ _____
Coarse Sand	17 Cu. Yds.	@	_____	_____
Portland Cement	37 Bbls.	@	_____	_____
Alternate (1)				
8" Concrete Block Foundation Wall				
Concrete Footings 8"x16" (1-3-5 mix) 146 Cu. Ft.				
Crushed Stone or Gravel	4-1/2 Cu. Yds.	@	_____	_____
Coarse Sand	2-3/4 Cu. Yds.	@	_____	_____
Portland Cement	6 Bbls.	@	_____	_____
Concrete Block				
8"x8"x16" Hollow	914 Blocks	@	_____	_____
4"x8"x16" Solid	118 Blocks	@	_____	_____
(For Capping)				
Alternate (2)				
12" Concrete Block Foundation Wall				
Concrete Footings 8"x20" (1-3-5 mix) 170 Cu. Ft.				
Crushed Stone or Gravel	5-1/4 Cu. Yds.	@	_____	_____
Coarse Sand	3-1/4 Cu. Yds.	@	_____	_____
Portland Cement	7 Bbls.	@	_____	_____
Concrete Block				
12"x8"x16" Hollow	803 Blocks	@	_____	_____
8"x8"x16" Hollow	117 Blocks	@	_____	_____
4"x12"x16" Solid	75 Blocks	@	_____	_____
4"x8"x16"	37 Blocks	@	_____	_____
Total Masonry and Concrete \$ _____				

LUMBER

<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>	<u>Unit</u>	<u>Price</u>	<u>Total</u>
Sills and Wall Plates	8 Pcs. 2x4-14	75	@	\$ _____	\$ _____
	8 Pcs. 2x4-12	64	@	_____	_____
Girder Posts	3 Pcs. 6x8-7	84	@	_____	_____
Beams	12 Pcs. 2x10-14	280	@	_____	_____
Blocking	2 Pcs. 3x4-8	16	@	_____	_____
Headers and Trimmers	3 Pcs. 2x10-14	70	@	_____	_____
Plank Floor	60 Pcs. 2"x6" T&G -14	840	@	_____	_____
	20 Pcs. 2"x6" T&G - 8	160	@	_____	_____
	40 Pcs. 2"x6" T&G -12	468	@	_____	_____
Top Ledger at Stair					
Stringer	1 Pc. 2x4-8	5	@	_____	_____

<u>Item</u>	<u>Size and Quantity</u>	<u>Feetage</u>	<u>Unit</u>	<u>Price</u>	<u>Total</u>
Ceiling Beams	12 Pcs. 2x10-14	280	@	\$	\$
Headers	4 Pcs. 2x10-14	93	@		
	4 Pcs. 2x10-12	80	@		
Plank Ceiling	60 Pcs. 2"x6" T&G-14	840	@		
	60 Pcs. 2"x6" T&G-12	720	@		
Exterior Studs	56 Pcs. 2x4-14	523	@		
Interior Studs	76 Pcs. 2x4-8	405	@		
	8 Pcs. 2x6-8	64	@		
Posts	6 Pcs. 2x4-9	36	@		
Interior Cornice Blocking	200 Lin. Ft. 2x3	100	@		
Exterior Wall Plates	10 Pcs. 2x4-14	93	@		
	10 Pcs. 2x4-12	80	@		
Sheathing for Exterior Walls	1x8 Box laid diagonally	1125	@		
Siding	1"x6" Drop or Shiplap	1110	@		
Interior Paneling and Ceiling Material					
Living Room D&M V'd Boards	10 Pcs. 1x8-12	80	@		
" " "	8 Pcs. 1x8-10	53	@		
" " "	1"x8", 10" and 12"x4'6"	207	@		
S4S	2 Pcs. 1x10-14	23	@		
"	2 Pcs. 1x10-12	20	@		
Small Bedroom D&M V'd Boards (Vertical)					
1"x8", 10" and 12"x7'0"		115	@		
D&M V'd Boards (Vertical)					
1"x8", 10" and 12"x8'0"		145	@		
Cornice Board on Outside Wall -					
1 Pc. 1"x10" S4S 12'0"		10	@		
1 Pc. 1"x10" S4S 10'0"		8	@		
Kitchen, Cornice Board, 1 Pc. 1"x10" S4S 10'		8	@		
2 Pcs. 1"x10" S4S 8'		13	@		
Furring from Beam to Wall -					
1 Pc. 1x12 S4S 10'0"		10	@		
Other Kitchen Wall Finish, 140 Sq. Ft. Net Area					
Total Lumber				\$	